# WORKING TOWARD SUSTAINABLE ECONOMIC DEVELOPMENT AND RESOURCE CONSERVATION IN THE ADIRONDACK PARK

## Analysis and Case Studies

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# PRESENT TRENDS

Encompassing just over six million acres of land, the Adirondack Park boasts an incredible array of natural resources as well as a distinctive human culture. Possessing what is one of the last undisturbed temperate forests in the United States, the Park's unique ecosystem consists of flora and fauna, and geologic and hydrologic systems which are not found anywhere else on Earth. Yet, unlike well-known national parks such as Yellowstone and Yosemite, the Adirondack Park encompasses an assortment of hamlets and towns which provide a home to about 130,000 permanent residents-–many of whom are the descendants of several generations of Adirondackers. A drive through the Park simultaneously exposes the visitor to majestic mountains and rolling farmland, sparkling lakes and quaint inns, dense forests and vibrant schools, curious wildlife and aged town houses, rushing rivers and friendly general stores. When human and ecologic characteristics are complimentary rather than diametrically opposed, the Adirondacks flourish in their full grandeur. Preservation of both the natural resources and human culture are necessary so that, in the words of one Adirondacker, "...our towns won't become homogeneous with other parts of the country, the Adirondacks will continue to be a special place filled with special people."[1]

Since long before the Blue Line was drawn a hundred years ago, the Adirondacks have served as a laboratory for some, a playground for others, and a home for many more. Residents of the Eastern Seaboard could pursue a frontier lifestyle or a wilderness vacation without going any farther west than New York. Nevertheless, a growing population and a vastly improved transportation system have changed the Adirondacks forever. Today, the future of the Park's ecological and human characteristics is uncertain as the Park begins its second century. The former backbones of the economy – farming, mining, and forestry – have seen their profitability decrease as competition increases from production in new areas of the country. Furthermore, most new industry is scared away by the rugged terrain, harsh climate, and the cost of transporting goods to outside markets. Thus, the Adirondack economy must adapt to the characteristics which are unique to the Park. It is the natural resources existing within the Blue Line which contain the true value of the Adirondacks; the challenge then, is to utilize this value in a nonconsumptive manner that will be sustainable far into the future.

The transition to a sustainable economy based on services and tourism in place of traditional extractive industries has already begun, but it will be difficult and slow. Unfortunately, the vision of an old, bearded, Adirondack native guide paddling a handmade canoe in return for generous compensation from appreciative visitors, is a rare sight. The present economy is plagued by cyclical unemployment and limited income. Although the Park cannot attract much industry, real estate development continues to increase as more people from outside the Park invest in second and/or seasonal homes. Unfortunately, such static development endangers the natural resources that draw people to the Adirondacks in the first place. Consequently, the economic health of the Park staggers while pressures on ecological systems mount.

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[1] Young, Terrance. "Letters to the editor," *Adirondack Daily Enterprise*, (June 21, 1991).

There has been much talk in recent years about sustainable development: a resource management strategy that guarantees both economic prosperity and a healthy environment. At the moment, all sides disagree as to how the full range of interests will be represented in one comprehensive sustainable development plan for the Adirondack Park. For example, Adirondackers residing in the park's towns and villages often see the issue from a different perspective than those who use the Park only as a recreational destination. Park residents, as a whole, view themselves as the greatest supporters of the Park. Many feel that the Adirondacks are in excellent condition and that they have preserved the quality of the land for generations. However, restrictions on development have a direct impact on their economic well–being, and Adirondackers are wary of overzealous efforts to preserve the environmental condition of the Park. They are unwilling to sacrifice their standard of living to appease what they see as the whims of tourists from New York City. Adirondackers see acquisition of land by the state as an assault on their tax base. Zoning restrictions detract from the value of their land and reduce options to use what they simply see as their property. They do not believe that they alone should bear the costs of something that will benefit millions of other people.

At the same time, the Adirondacks are seen by many people throughout New York as a resource that must be protected for the benefit of all the residents of the State. Moreover, interest in the Park is by no means limited to the State of New York. The Adirondack Park is the largest park of its kind in the continental United States. In addition, it ranks as the fourth largest biosphere reserve in the world. Because it is such a unique asset, the Adirondacks must be protected for the benefit of the entire planet. Successful management in New York could provide an example for the world's great natural resources many of which are struggling to support growing human populations.

By speaking with Park residents and other interested groups and individuals, and following issues addressed by the media, it is possible to identify the most poignant concerns facing the Adirondack Park today. Aesthetics, characterized primarily by open space, are one of the most highly valued assets of the Park. Because construction is the most visible sign of environmental degradation, it is important that signs of human activity do not detract from the beauty of the natural landscape. However, in an area debilitated by the sluggish economy, any action that places further strain on people's standard of living is sure to elicit genuine concern. It is essential that the financial stability of the residents is taken into consideration at all times. Environmental quality is a luxury that can only be ensured by people with economic stability.

The most pressing issue on the minds of the Adirondackers is probably the need for more local representation and control. Adirondackers complain that the Adirondack Park Agency (APA) is unreceptive and unsympathetic to the opinions and needs of the local population. Many would agree with the statement that the APA, "...is not a friend of either the Adirondacks or local governments."[1] Furthermore, among both the friends and detractors the APA, the consensus seems to be that inefficiencies and inconsistencies within the Agency retard progress. Even the Agency itself admits that its resources and staff are too limited to fulfill the responsibilities which have been handed to them.

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[1] Casier, Frank. "Letters to the editor," *Tupper Lake Free Press*, (January 16, 1991).

Clearly then, these points of contention must be addressed by any plan for sustainable economic development within the Park. Although the conflicts are challenging, there is no reason to believe that protection and development must always be mutually exclusive. The abundance of natural resources, the diversity of plants and animals, and the expanses of wilderness have become important trademarks of the Adirondack Park. Park residents must be permitted to have use of these resources without depleting them. Therefore, a dependency upon non–consumptive sectors provides the only viable option for any kind of sustainable economic development. Low impact economic development, such as an increase in tourism and light industry, should be explored and encouraged. If the permanent population is to continue to inhabit the Park and enjoy a decent standard of living, projects for economic growth cannot be rejected without fair consideration. Communication is fundamental to the health of the economy and the environment in the coming century. Many residents demand more representation especially in issues concerning land use regulations. One group's message was that, “Local governments need a strong voice in land use regulations and there is no crisis in the park.”[1] There needs to be more local organization and communication within the present system so that misunderstandings do not arise between local governments and the APA.

If people hope to thrive in the Adirondack Park, they must be in a position to coexist with their environment. In the Adirondacks, the people and the environment are inextricably linked. On the one hand, environmental degradation limits the potential for economic growth. On the other hand, overly stringent regulation will stifle the very people who are charged with stewardship of the land. If coexistence is impossible in the Adirondack Park, it is frightening to consider the implications for the future of our Earth. Nevertheless, there are examples in the Park which display possibilities for cooperation between ecological protection and economic progress. These successes need to be studied in order to implement promising and provocative policies which will ensure the continued existence of the Adirondacks and the Adirondackers into the next century and beyond.

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[1] Mele, Chris. "Roles of Adirondack Groups Changing," *Plattsburg Press Republican,* (December 18, 1991).

# PROJECTIONS FOR THE FUTURE

If development and population in the Adirondack Park is sustainable, in twenty-five years the Park could be a wilderness oasis for busy suburban east coast dwellers, the only area of expansive “wilderness” left in the northeast that offers an exceptional standard of living for its inhabitants. However, population trends in the Park show that the number of residents has been increasing. Between 1960 and 1986 the population increased by 21.8% from 154,625 to 188,410 people. This is considerably higher than the statistics for the whole state, which increased by only 5.9%. It has been predicted that between 1980 and 2010 the population in the Park will have increased by an additional 10.8%. If the demand for development in the Adirondack Park is not held in check by current policies and regulations, the unique character of the Park and its people will not be preserved, and future generations will be denied the benefits of the area's natural beauty. Slow and steady growth needs to be encouraged, but monitored, to ensure a healthy economy without environmental abuse.

If the economy of the Park remains in its present state, income levels will remain below the state average and the numbers of families on state aid will increase. Income levels in Park towns are considerably below average state levels and tend to be lower than those prevalent in other rural areas outside of the Park. In 1985, per capita money income earned by Park residents was only 72% of the state-wide average, and 88% of that in non-Park rural counties.[1]

Population trends and future income levels both affect housing in the Park. Between 1970 and 1980 real estate appreciation rates in most Park towns increased by 8-11%. These rates were even higher on lakeshore properties.[2] As more and more people move into the Park, real estate appreciation will continue to increase due to the limited amount of private land. If additional low-income housing is not secured in the near future, many low-income Park residents could be forced to leave the area.

The median age in northern New York is expected to increase dramatically in the future. In 1980 the average age in northern New York ranged from a low of 26.2 years in Clinton County to a high of 32.5 years in Essex County. By 2010, it has been predicted that the median age will have increased by at least 9 years since 1980.[3] These changes in population will have a profound effect on the labor force and on human resource requirements. The percent of the population in the working force will decrease, as will the number of persons seeking entry level employment positions. A growing number of older persons will need additional health care and housing.[4] If better job opportunities are not created in the Park, the chances of encouraging the younger generation to remain in the Park will decrease. If emigration continues labor supplies will decrease, and it will be more difficult to improve the Park's economy. The Adirondack Park's tradition and heritage could be threatened as well.

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[1] Dunne, James. "Deomographic and Economic Characters of the Adirondack Park," The Adirondack *Park in the Twenty First Century* (April, 1990), Vol. II, 14.

[2] Ibid, 14.

[3] New York State Department of Commerce, State Data Center, "Official Population Projections for New York Counties: 1980-2010", (1985).

[4] Ibid

Most residents think that current environmental regulations will keep the natural Park in excellent condition. As there is limited industrial development, there will be few additional environmental problems. One resident said that in 25 years the Park could become “nothing but a museum with a bunch of prisons in it.” Other residents are very worried about the natural aspects of the Park, affected by an ever-increasing tourist industry which takes its toll on the back–country regions. Problems such as trail erosion threaten the delicate ecosystem of the High Peaks region.

The Park, being attractive to many people besides residents, brings in an increasing number of vacationers. Much of the economy in the Adirondack Park is directly linked to the environment and the pristine beauty that the Park provides to both visitors and residents. Over the last ten years jobs in tourism in the state have increased 28%.[1] The greatest regional increase of 68% has been in the Park.[2] The tourist industry accounts for more than 50% of the Park’s economy, but the business it provides is mostly seasonal and low paying, providing jobs only during certain times of the year. The unemployment rate in January was 13.8% but only 9% in July between 1980 and 1984.[3] If a greater diversity of job opportunities does not present itself, then it will be impossible for Adirondackers to improve their economy in the long run.

Many people in the Park are becoming increasingly irate because they face a general lack of representation in Park decisions. Most argue that they kept the park beautiful even before it was a Park, and that an outside body, such as the APA, does not need to mandate what they do. Park residents often feel that the APA neither listens to them nor cares much about what they think. The low population density within the park puts them at a disadvantage when compared to the political power available to the large number of people living in big cities. Park residents are frequently left with little control over their own land. If this attitude does not change and the APA refuses to listen to local opinions, violence and disregard for the law will result. Alternative solutions to the problems facing the Park exist, but they will be impossible to reach unless everyone agrees to communicate and listen to one another.

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[1] Palm, Daniel and Robert Quinn. "Tourism in the Adirondack Park," *The Adirondack Park in the Twenty First Century,* Vol. II (April, 1990), 49.

[2] Ibid, 50.

[3] New York State Department of Commerce, State Data Center, "Official Population Projections for New York Counties: 1980-2010", (1985).

# SUSTAINABLE DEVELOPMENT

The Adirondack Park is unique in that it is one of the largest pieces of American wilderness and the home of 130,000 people. As explained in the previous section, both the cultural and natural values of the people and places of the Adirondack Park are in jeopardy. The people of the Adirondack Park are dependent in many ways upon the clean, abundant natural resources of the Park. The Adirondackers take pride in the high quality lives, undisturbed by pollution, crowds and crime, that they lead in the Park. Yet at the same time, they are being pressured by high unemployment and other economic limitations to destroy the one aspect that has brought and kept them in the Park: the environment.

Environmental aesthetics and wildlife are not the only elements being threatened. Industry, the economy, and way of life within the Park are all in jeopardy. The Adirondackers have the right to the high standard of living enjoyed by those living outside of the Blue Line. Is it possible to protect the unique aspects of the Park's pristine wilderness while at the same time providing an economy that can support its residents? The answer to this question lies in a strategy called *sustainable development*.

Sustainable Development is a term that was made popular in 1987 by the report of the United Nations Commission on the Environment and Development, *Our Common Future*. Since this time, there has been considerable discussion and debate over the actual meaning of the term and how its theories can be applied to today's industrial and developing countries. Sustainable development should be viewed as a lifestyle which meets people's present needs without compromising the ability of future generations to do the same.[1] Sustainable development is a strategy which seeks to address the social, economic, and environmental problems that exist today, and to prevent problems that will appear in the future if current attitudes and wasteful lifestyles continue. The concept covers a wide range of policies from recycling in the home to the elimination of acid rain.

Sustainable development is often misinterpreted as the improvement of the environment at the expense of the human race. But in practice, it does not require the sacrifice of all material comforts. It does, however, require the reexamination of modern society's habits of receiving benefits now and postponing costs to the future. Strategies for sustainable development will not halt all forms of economic and social development. In fact, such strategies will strive to develop a strong economy that is dependent upon a clean environment. The application of sustainable development practices in the Adirondack Park would be an attempt to improve both the environment and the quality of life of those who inhabit the area.

An essential component of sustainable development is the requirement that development not be assessed in purely economic terms. When evaluating a community's success, people generally look at economic indicators such as average income. Sustainable development stresses that there are other measures of success that should be weighed as heavily as economic indicators. It is important to recognize that it is not possible to attach a monetary value to every aspect of life. The overall quality of life and the quality of the environment must be taken into consideration. Health, longevity, knowledge (literacy rates, graduation rates, college attendance rates), employment rate, average consumption, environmental degradation (depletion of non-renewable resources, polluted water and air), diversity of wildlife, and food production are examples of indicators that should be examined when evaluating the growth of a community.

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[1] *Our Common Future* (1987).

One intrinsic aspect of sustainable development is that it requires local involvement. Many of the models of sustainable development that exist throughout the world today are the result of experts working with local people to understand and improve the environmental, social, and economic conditions of their community. It has been the local people's understanding of the problem and their views on a solution rather than the experts' knowledge that has played the key role in producing successful models of sustainable development.

Sustainable development programs are being implemented throughout the world. Most people associate sustainable development programs with developing Third World nations, but there are many industrialized countries that are presently using the concept to their economic and environmental advantage. Denmark, Norway, Canada and Japan all have sustainable development strategies helping to make their countries both economically and environmentally stable. Sustainable development practices are largely unexplored in the United States.[1] Slowly, however, Americans are turning to sustainable development across the country, from the Columbia River Basin Project in the Pacific North West[2], to the Worcester Mountains Project in Vermont.[3]

The concepts of sustainable development will ultimately need to be applied to every region of the world if humans hope to continue to live high quality lives in a healthy environment. Applying the concepts of sustainable development to New York State's Adirondack Park can supply answers to the economic, social, and environmental problems that exist there now, and it will prevent the Park from becoming like many of the overcrowded, polluted regions of the world today. Sustainable development in the Adirondack Park could produce a situation in which the needs of today's residents are met without compromising the environment or the lives of future generations. The opinions of the local people will be essential in decision making. The Adirondacker way of life will be protected from unemployment *and* overdevelopment. Sustainable development can improve the present living conditions (e.g. health, education, employment rate.) of the Adirondackers, and transform the Adirondack Park into a model that the rest of the world can look to as an example.

The following sections of this report contain current examples and suggestions that outline the beginnings of a viable sustainable development agenda for the Adirondack Park. The practices that they encourage are compatible with the Adirondack way of life and the environment that supports it. As we have already argued, this way of life is presently in jeopardy.

“ If present economic trends continue, Adirondackers will be priced out of the

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[1] Wilkinson, C. F. 1990. "Crossing the next Meridian," *Environment*. v32 No. 10 (December), 17.

[2] Lee, K. N. “The Mighty Columbia: Experimenting with sustainable development,” *Environment* v. 31 No.6. (July/August 1989), 6.

[3] Shallow, Jim. "Worcester Mountains Project: A Model of Sustainability," *Vermont Environmental Report*. (Spring 1991), 20.

Park in ten years."[1] The following programs and suggestions outline strategies that can protect the Adirondack way of life by strengthening the economy and preserving the environment, and therefore offer its residents an important opportunity for the future.

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[1] Victor Grant, Planning Board Chairman, Lake Luzerne.

# THE SURVEY OF THE HAMLETS

Rather than approaching the Adirondack Park on broad scale, this study chose to divide the Park down into different regions and to do an in-depth study of several hamlets in each of these regions. This technique allowed research into specific, though diverse, areas within the Adirondack Park in search of stories of successful economic development concurrent with the protection of natural resources. These success stories are now able to serve as models for future sustainable development within the Adirondack Park.

Volume 1 of “Hamlets of the Adirondacks” divided the hamlets of Adirondack Park into nineteen regions based on geographic distribution. “Hamlets sharing a physical location such as a farm setting, wooded lakes region, or lake edge tended to group together....Hamlets sharing cultural or historical development characteristics... communities settled at a similar time and by large immigrations of specific ethnic populations became aggregated...shared history in types and periods of industrial development such as mining, lumbering, and resort/tourism led to other groupings.”[1] The 19 geographic regions selected in volume 1 of the Hamlet Study were used in this report. Our goal was to get opinions and information from throughout the Park. Choosing hamlets representative of the nineteen geographic regions was deemed to be the most efficient way of doing this. The hamlets as a group represent a cross–section of all the hamlets of the Park – they each display positive aspects of location within the Park as well as some difficulties with that same location.

Following is a list of the nineteen regions and the hamlets we chose from each.

1. Champlain Valley Towns
   Willsboro
   Port Henry
2. Eastern Foothill Hamlet
   Mineville–Witherbee
3. Ausable River Communities
   Ausable Forks
   Keeseville
4. Hamlets of the High Peaks
   Wilmington
   Keene
5. Tri–Lakes Regional Centers
   Tupper Lake
   Saranac Lake
   Lake Placid
6. Saranac River Towns
   Clayburg
7. St. Regis Woodland Hamlets
   Gabriels
8. Western Forest Hamlets
   Star Lake
   Newton Falls
9. Northern Foothill Communities
   South Colton
   Lyon Mountain
10. St. Lawrence Lowland Communities
    Ellenburg Center
11. Adirondack Wilderness Outposts
    Indian Lake
    Old Forge
    Long Lake
12. Southwestern Resort Communities
    Caroga Lake
13. Great Sacandaga Lake Settlements
    Edinburg Center
14. Piseco/Lake Pleasant Villages
    Speculator
    Lake Pleasant
15. Hudson Plateau Hamlets
    North Creek
16. Glens Falls Satellite Communities
    Lake Luzerne
17. Schroon River Settlements
    Brant Lake
18. Lake George Communities
    Bolton Landing
19. Sacandaga River Towns
    Wells

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[1] 'Hamlets of the Adirondacks', Vol. 1, 22.

Once the hamlets had been chosen, a standardized interview was designed to learn about economic and environmental conditions within the Park and to allow local citizens to express their feelings on these issues. The survey covered topics identified in Adirondack Park newspapers, publications, pamphlets, and magazines published in the last two years. The interview consisted of 75 questions, and was divided into six sections: Personal Background, Hamlet Economics, Environmental Quality within the Hamlet, Socioeconomic Conditions of the Hamlet’s Citizens, Opinions on Park Issues, and Examples of Sustainable Development within the Park. The open ended questions were designed to gather as much information as possible about the state of the economy and the environment in each hamlet by covering a wide range of topics and by allowing interviewees to elaborate on those subjects with which they were most familiar.

# CASE STUDIES

The purpose of this section is to identify successful development strategies within the Adirondack Park. A successful development strategy is one that is economically profitable without degrading the natural resources of the Park. The following examples provide guidelines for future development in the Park, as well as suggestions for how conditions in the Park can be improved. Case studies fall into three general categories: economic, environmental and social.

## *ECONOMIC CONCERNS*

### I. TOURISM

#### *Current Trends:*

The beauty of the Adirondack Park's untouched wilderness and its limited natural resource base make tourism an economically promising part of the Park's economy. Visitors to New York State spent $17 billion in 1987, creating 700,000 jobs for residents of New York State. While tourism accounts for about 12% of the state's gross product, this industry provides nearly half of the economic activity within the Blue Line.[1] The last available employment record indicates that more than 30% of average monthly employment in the Park was tourist related; the industry has grown considerably since this information was compiled.[2]

The present Park regulations make industrial expansion difficult; many industries that might be attracted to the Park are dissuaded from expanding into the Adirondack hamlets because of strict regulatory requirements. Tourism, however, can be expanded within these regulations. New construction need not take place; tourism can be made larger and stronger with the utilization of existing structures and sites.

The future of a tourist economy is dependent upon preservation of the Park's clean and natural environment. Tourists from outside the Park are attracted by the pristine beauty of its lakes and vast open tracts of forest preserve. By building a strong tourist economy, the people of the Adirondack Park will be given an economic incentive to preserve this open space; an untouched natural environment will become the Park's greatest commodity.

The present national economic hardships have hit the fragile Adirondack economy especially hard, making it difficult for businesses to get loans. The lack of low interest loan programs for the small service sector adversely affects tourist businesses such as motels, restaurants and retail operations. For example, a hotel or ski resort that might want to modernize and improve its facilities cannot obtain adequate funding to do so, and therefore, a potential user increase is lost.[3] The weak economy has also forced the state of New York to make cuts in the tourism budget, which translates into less advertising, reduced staff in state–run tourist facilities, and less adequate upkeep of the facilities themselves. State-imposed legal restrictions can sometimes hinder tourism; for example, snowmobiling trails in the Old Forge area cannot be used in the summer months as hiking or biking trails because of liability concerns.

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[1] "Barriers and Solutions for Tourism", *North Country Economic Development Conference*, 1985, 51.

[2] Brown, Tommy L. and Connelly, Nancy A., *Tourism in the Adirondack Region of New York*.

[3] Hohmeyer, Ernest, Director of Adirondack Economic Development Committee, Saranac Lake.

Tourism, as an industry, suffers from seasonal lags. In the Adirondacks, this means that most areas whose economy depends on tourism are thriving in the summer--sometimes even to the point of oversaturation--but are underused in the remaining three seasons. In November and March, studies have shown virtually no tourist action in the Adirondacks.[1] One resident of Saranac Lake summed up the problem by saying, “We are employed six to seven months of the year, and are paying bills twelve months of the year”.

Presently, a lack of infrastructure for tourism within the Park makes accessibility to tourist activities difficult. There is no central visitor center which could serve as a destination and information center for visitors. Entry points into the Park have not utilized the opportunity to offer information centers which could promote attractions across the area. There is no organized transportation system to provide easy travel to and from the attractions of the Park. In the summer, the roads in the vicinity of tourist hamlets are not large enough to sufficiently handle vehicle traffic.

## ***Case Studies:***

### Solutions to Seasonal Economies

### *A. Snowmobiling in Old Forge*

Previous to the mid-1970s, the economy of Old Forge suffered from large seasonal variations in tourist traffic, causing high unemployment in the winter months. To remedy the lag in business between the months of November and March, snowmobiling was introduced into the area. The local Chamber of Commerce arranged a trail system and an insurance policy for the activity. In the past decade, Old Forge has become a center for snowmobiling. Previous to introducing snowmobiling, the economy of the area generated a seasonal revenue of approximately $300,000; currently, during a winter with good snow, with the attraction of snowmobiling, $3,000,000 is being brought into the area. Unemployment has dropped from close to 30% to 5%. Since the introduction of snowmobiling, the winter economy of the area has reached a strength close to that of the thriving summer months. Hotels and restaurants profit from an entire year of business instead of a six month season of tourism.

*Suggestions:*

The existing snowmobiling trail system can be utilized to further strengthen the economy of Old Forge. To diversify the winter economy and attract more clientele, some trails could be designated for nordic skiing or dog sledding. In the summer months, the trail system could be utilized as hiking and/or mountain biking paths. Similar cross-use of trail systems may be implemented in other areas of the Park. Easy, rolling hiking trails could be used for nordic ski or snowmobile trails.

For example, the Garnet Hill Ski Lodge operates as a cross-country ski touring center in the winter and operates as a resort offering hiking, boating, and swimming during the summer. The Lodge has also modified its ski trails for mountain biking in the summer.

To guarantee the future of the trail systems and the economy which they support, the environment will need to recover. A trail rotation system should be designed. For a number of seasons, certain trails would be designated as usable and others as off-limits.

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[1] Brown, Tommy L. and Connelly, Nancy A., *Tourism in the Adirondack Region of New York,* p. 41.

For more information, contact: Old Forge Chamber of Commerce, (315) 369-6983.

### *Solutions to the Lack of Infrastructure*

#### *A. Restoration of the Railroad Corridor*

A lack of adequate transportation routes hinders further progress of tourism in the Park. Single lane highways quickly clutter in the summer months, causing traffic jams and high frustrations. Such annoyances will discourage tourists from returning. People interviewed in Old Forge complained that a drive which takes only fifteen minutes in the winter months is a two hour ordeal in the peak season of July and August. To accommodate the demand for more transportation, widening of the existing highway system has been proposed. Such an undertaking, however, has costs both to the tax payers and to the environment. Many tax payers who are not employed in tourist related activities will not financially benefit from the increase in tourism. Furthermore, more traffic adds to air pollution and bisects migratory routes. More blacktop will irrevocably alter more of the environment and detract from the aesthetics of the Park.

Currently, the State of New York owns the 118 mile railroad which connects Utica to Lake Placid and travels through tourist centers such as Old Forge, Tupper Lake, and Saranac Lake. The rail corridor is not presently in use; its future is being debated. A study commissioned by the Adirondack North Country Association (ANCA) in 1990 found that this rail line would attract about 100,000 riders annually and would be financially self-sufficient once established.[1] No financial burden would be forced upon the citizens of the Park. Furthermore, the re-opening of the railroad would help protect the wilderness. Trains provide controlled transportation. Traffic in particularly fragile areas of the Park could be regulated by the number of people allowed off at certain stops. Automobile traffic would decrease as tourists could park in Utica and travel conveniently to their destinations.

The Utica-Lake Placid line was open in 1980 but failed due to severe undercapitalization and inadequate management. The hiring procedures of the State were poor and put unqualified persons in administrative positions.[2] On the other hand, an independent company would be interested primarily in profit margins and would run the train efficiently.

Recreational railroads have been proven beneficial to the tourism economy. In Ontario, the Algoma Central Railroad carries 120,000 passengers each year and benefits the local tourism and related businesses by over $25,000,000.[3] Similar revenue could be attracted to the Park through the reopening of the Utica –Lake Placid line.

*Suggestions:*

The railroad services areas are already equipped to handle recreational activities such as snowmobiling, skiing, biking, and hiking. A concept known as rails with trails is gaining popularity across the country. In Utica, a central tourist information booth could supply tourists with maps indicating the paths which are accessible from the rail. Outfitting shops could be established at the destinations and tourists could travel easily to their site and activity of choice. The worry of long drives and finding a good path could be eliminated. For more information, contact: North Country Railroad Association, P.O. Box 4116, Utica, NY 13504.

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[1] "Why We Should Save the Railroad Through the Adirondacks", North Country Railroad Association.

[2] personal interview, Old Forge Chamber of Commerece (November 2, 1991).

[3] "Why We Should Save the Railroad Through the Adirondacks", North Country Railroad Association.

### *B. Essex County Travel Guide to the Adirondacks Region*

Many areas in the Park have an established tradition of tourism. Attractions and facilities in surrounding areas, however, run the risk of being overlooked. Hub-and-spoke programs are being established, in which one hamlet serves as an already established main focus and nearby facilities are advertised to persons traveling to that area. The object of the plan is to ease congestion in certain areas and to spread the tourism revenue across the entire region. In Essex County, Lake Placid is the most prominent attraction; so that all the tourist economy does not focus of one area, the nearby hamlets and attractions are being advertised and recommended in the County Travel Guide. Well- known to the public, Lake Placid easily attracts many visitors. To encourage tourists visiting the town to explore the surrounding areas, the Essex County Tourism Committee produces a travel guide which promotes activities and attractions in the entire county; according to Ron Osner, director of tourism in Essex County, it is the most complete of any in the Park. This comprehensive guide tells tourists exactly where all the facilities are in the surrounding towns, providing pertinent information such as addresses and phone numbers. The guide maps the easiest access routes and publicizes the Chambers of Commerce. Osner says that the guide has been successful because it provides visitors with a "big picture" of the county not just of one specific and isolated area.

More than 50,000 guides have already been mailed upon request. Most have heard about the guide from television or magazines. Many people pick up the guides in the Park while they are there. Funding for the guide came from the "I Love NY" matching fund.

*Suggestions:*

In the future, guides should be made available for all counties at central locations such as museums and visitors centers. Locations on the Park's periphery should also have guides for bordering Park counties. For more information, contact: Ron Osner, Essex County Tourism, Elizabeth Town, NY 12932; (518) 942-7794.

## *Restoration of Existing Structures*

Lack of adequate lodging was cited by many interviewed persons as a major hindrance to further development of the tourist economy. Current APA restrictions make construction of new facilities difficult. The ultimate desire of the APA is to protect the unspoiled environment. Development and protection of the environment can occur simultaneously. Old lodges and existing structures may be renovated to provide lodging and tourist facilities. The legal restrictions are less strict on renovation programs. The use of already existing buildings will contain the area in the Park which is developed, saving the remaining land as unspoiled nature. Such restorations may occur on the large scale of camps and lodges or the smaller scale of Bed-and-Breakfasts.

### *A. The Sagamore Lodge and Conference Center*

The Sagamore Lodge and Conference Center was one of the great old camps of the Adirondacks which has been converted into an educational retreat. It is currently owned by the Sagamore Institute, a non–

profit organization "with the mission of promoting closer, more balanced human relations with nature...and dedicated to the responsible use of the environment, regional traditional crafts, personal growth, and positive change"[1]. The camp was originally built by William Durant and sold to the Vanderbilts in 1901. The Vanderbilts donated the camp to Syracuse University in 1954 which converted it to a conference center and then sold it to the Sagamore Institute in 1974.

The Sagamore Institute opened the camp for public use, and it is currently the only camp that offers tours of its grounds (adults $5, children $2.50). The institute offers a variety of weekend and week-long courses, such as Education for Conservation, Tours and History of the Great Camps, Women Writing the Land, Grandparents and Grandchildren weekend, and Fly Tying in the Adirondacks. In addition, Sagamore offers recreational weekends of skiing, mountain biking, snowshoeing, and hiking with experienced guides.

The camp is open all year with the exception of approximately two months during the mud season, during which time the dirt service road is washed out. The Sagamore complex has 29 buildings, its own store, and can accommodate up to 75 guests. Recreational facilities include: canoeing, swimming, volleyball, croquet, 20 miles of cross–country ski trails in the surrounding Forest Preserve, hiking and mountain climbing. The Institute employs 9 full time employees with an additional staff of 25 in the summer and of 14 in the winter. Over the course of a year, there are approximately 4,000 tours of the camp and 18,000 participants in workshops. The Institute also has internships available for the summer, fall or winter which include room, board and a $50 weekly stipend.

The Institute uses its surrounding environment to attract visitors and educate them about the Adirondack Park's cultural and natural history while at the same time providing both temporary and full time employment for local people. This type of program causes limited environmental degradation because use of the surrounding area is controlled by professional guides who are trained in environmental preservation. For more information, contact: Dr. Michael Wilson, Sagamore Institute, P.O. Box 146, Raquette Lake, NY 13436.

*Suggestions:*

Programs similar to the Sagamore Institute could be incorporated into many of the summer camps that exist in the area. For example, summer camps could be modified to accommodate people in the winter so that programs could be run throughout the year. This would serve to make camps less seasonal in their operations. The old Santanoni camp is currently being restored by the State and would be a good place to locate an environmental education center.

### *B. Fort Ticonderoga*

Fort Ticonderoga is an old fort which has been restored and now functions as a museum. The fort offers open and special tours. More recently an emphasis has been placed on school groups from the New York and Vermont areas. The tour guides dress in traditional uniforms. Delight Gartlein, the marketing director, says that it is exciting for kids to visit the Fort, and the uniformed tour guides add a sense of reality to the visit.

The Fort employs 7 people year round and sixty people in the summer. It is open from mid–May through mid–October. Last year it had 100,000 visitors, 7,000 of whom were school children, a greater than 20% increase from the previous year. Many tour groups come through with motor coach tours. Gartlein has noticed a large number of international tourists as well. Ninety percent of Fort Ticonderoga Association's funding comes from visitor fees.

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[1] Sagamore Historic Great Camp Brochure, Fall 1991/ Winter 1992

Fort Ticonderoga is a good example of the restoration of an historic site which has become an important tourist attraction and which supplies many people with jobs in the summer. It is an excellent form of education for all age groups. Some people could potentially object to this kind of development in the Park because the Fort is not open all year round, only employing a substantial number of people during the summer. However, many of the people it does employ are students and are only available during these months.

*Suggestions:*

A similar case is the fort at Crown Point although very little restoration has been done and there is no shop, museum, or organization of tours. Its use could be organized according to the Fort Ticonderoga model in order to expand business. For more information, contact: Delight Gartlein, Marketing Director, Fort Ticonderoga Association, Ticonderoga, NY 12883; (518) 586–6366.

### *C. Stoney Waters Bed and Breakfast*

Stoney Waters is an old restored farm house that has been turned into a Bed and Breakfast. The owners tried to maintain as much of the traditional style as possible. The inn has three double occupancy rooms and one refurbished cottage with two double rooms.

The owners received no outside funding for establishing the inn. They had to get a permit from the APA to start business, a process which was not difficult but frustrating. It took ten months to get the low–impact permit which requires that inn occupancy be under 9 people. A different permit and review by the Board of Health would be needed for more than 9 people and would cost about $100,000. This would mean altering and "ruining" the character of the old farm house.

Stoney Waters had a 160% increase in business from last summer, with a 40% occupancy rate as compared to 16% the previous summer. Murphy believes that most of their increase is due to advertising efforts. Brochures were left at the ferry dock in Charlotte, Vermont, where they were the only B&B listed. Stoney Waters is also on the accommodation list for the summer camps in the area, and has brochures in the Westport Chamber of Commerce, the Lake Placid Chamber of Commerce, and in the Essex County Tourism Bureau. They are also listed in the Essex County Tourism Guide. Many of their guests are returns from the previous year, and they have had many referrals.

Some people have potential objections to this type of development in the Park because it employs very few people and it relies on seasonal activities for the majority of its business. However, the quality of jobs which it does offer is high. Compared to working for a large chain hotel, it is employment of a more personal nature. For more information, contact: Stoney Waters, Roscoe Road, Lewis, NY 12950; (518) 873–9125.

***Recommendations:***

1. Capital is lacking for both tourism development and promotion. In order to encourage entrepreneurship, tax incentives should be offered for tourism

development and small loan programs should be made more accessible. Tourism can benefit from better advertising. A greater percentage of the sales tax should be directed towards tourism promotion, and the existing tourist related signs should be improved.

2. Attractive communities are essential to tourism success. Community revitalization is important. Projects such as PRIDE which has been successful in Tupper Lake restoring an old movie house and maintaining a skating rink, should be instigated elsewhere. PRIDE taps the human and financial resources of the community.
3. Communities should emphasize their natural attractions. For example, both Lake Placid and Saranac Lake hope to build walking paths along their lakefronts so that tourists can get to the water. Tourists come to see nature, and communities should try, even in the hamlets, to make it available. The connection of the hamlet to nature provides another tourist attraction as well as an increased opportunity for tourists to enjoy and recognize the environment.
4. The availability and quality of recreational activities could be improved with more licenced guides. Guides help ensure safe ventures and control the recreational activities so that the areas of the environment are being surveyed. Well-publicized clinics and certification exams should periodically take place in areas easily accessible to persons throughout the Park.
5. Loan and technical assistance programs need to be established and advertised to help new businesses begin and to renovate old ones. An emphasis on smaller and "clean" business will limit the environmental impact and provide high quality jobs.

## II. AGRICULTURE

### *Current Trends:*

Agriculture as an industry has declined drastically in the United States over the last century. What was at one time the basis of the American economy and a popular lifestyle for many Americans, today is not: only 2.6% of the population chooses to provide food for the entire nation. Coupled with this decrease in the number of farmers is the increase in total farm acreage. Fewer farms control more agricultural land. Small–time farmers are finding it more and more difficult to compete with larger farms. Small farms contribute a small proportion to overall national production whereas large farms contribute the highest proportion. For instance, the smallest 50% of farms (which is approximately 1.2 million according to the 1982 Census of Agriculture) with sales less than $10,000 a year comprises only 5% of total nationwide production. On the other hand, the largest 5% of farms (110,000 in all) contribute approximately 50% of total nationwide production. Thus, the larger farms get richer while the smaller farms get poorer. Experts predict that by the year 2000, the largest 1% of farms will provide 50% of the total nationwide production while the smallest 1% will provide only 1%.[1]

For most of the late 19th century and early 20th century, agriculture was the backbone of the economy in the Adirondack Park. Farms were family operated and in the beginning, engaged primarily in subsistence farming. The productive land was able to produce more, allowing farmers to market their goods.

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[1] Hutt, Guy and Michelle. "Agriculture in the Adirondack Park," *The Adirondack Park in the 21st Century*, (April 1990), Vol. 2, 115–116.

These markets provided a stable living, so farmers did not need to search for additional jobs. Because of their stability, the farms offered a decent living to the following generations who took over the family farm and lived much as their parents did. Farming continued to be their sole provider of income and livelihood.

Changes in the agricultural industry in the Adirondack Park reflect the changes in agriculture at the national level. While farming continues to exist in the Park, it is concentrated in the few counties where it is still economically viable: Clinton, Essex, and Franklin Counties.[1] There has been a definite move from subsistence farming to large–scale, multi–farm, corporate operations that has pushed the family farm close to extinction. As a result, the private farmer has been forced to sell his or her land, or to find another means to augment his or her income. For example, hobby farms are common in the Park where the landowner farms not for economic gain but for pleasure while working elsewhere for a primary source of income.[2] This reflects the prediction that by the year 2000, nearly 80% of total nationwide farms will be owned by part–time farmers.[3]

Farming in the Adirondacks is difficult because of the rugged terrain and climate. Precipitation is variable since the mountains block the air flow; the average yearly precipitation in the Park is between 16–20 inches (16 inches in Essex County). The growing season is short, limited to four or five months before frosts kill the vegetation.[4] The mountainous terrain limits farming to the valleys and slopes, and this greatly affects the soils. For instance, areas of high elevation have thin soils with a high percentage of organic material; side slopes consist of glacial till, a mixture of sand, silt, and rock fragments that restrict rooting and water percolation; low elevation soils are most often silts and clays that are seasonally wet and prone to frequent flooding from nearby rivers and lakes. In general, Adirondack soils are loamy, sandy, and acidic.[5] The topsoil is depleted of basic cations (calcium, magnesium, and potassium) that are essential to plant growth because of leaching from acid precipitation. Of the 150 types of soils in the Park, only seven are considered “prime” for agricultural uses. Of the seven, six are found in gently sloping areas.[6] In 1972 the Soil Conservation Survey identified 30 crops that could grow in these soils if properly managed. Some of these crops are sod, carrots, cauliflower, peas, spinach, sweet corn, blueberries, strawberries, and lettuce. Wheat and soybeans could also be cultivated in the northern counties. Thus, it is biologically possible for marketable crops to be grown; the problem lies in the lack of suitable markets from which a farmer could profit.[7]

Grasses will grow easily on the Adirondack soils and slopes without erosion problems, making dairy farming the logical choice for most Adirondack farmers.[8] Today most farmland is dairy pasture, as this is the only economically viable means of support. Eighty-three percent of North Country farm receipts come from the sale of milk. This milk is then sold to companies who transport it outside the Park. Grain, hay, and sillage are also produced, but are used primarily to feed the dairy cattle. The only fruit crop of significance in the Park is small–scale apple production in Essex and Clinton counties[1]

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[1] "Options and opportunities for economic development in northern New York," (March 1985), 30.

[2] personal interview.

[3] Hutt, 116.

[4] Ibid. 122–123.

[5] Curran, Raymond. "Soil Resources and Productivity in the Adirondack Park," *The Adirondack Park in the 21st Century* (April 1990), 726.

[6] Ibid. 727.

[7] "Options and opportunities for economic development in northern New York," 36–37.

[8] Ibid. 34.

There are other reasons why agriculture is no longer the economically stable industry it once was. The local economies have experienced limited growth, creating little new demand for farm goods. Coupled with the market stagnation is the fact that few agricultural support industries or services are available within the Park. Machinery, fertilizers, and seeds, for example, all must be bought outside the Park and shipped in, which is expensive. Transporting products out of the Park is also costly. There is a shortage of labor as higher paying positions with more promising futures are available in other industries within the Park. Children raised on farms realize the bleak future in farming, and many choose other vocations. Furthermore, there are many outside buyers interested in purchasing land for second homes, and developers looking for prime and scenic real estate for housing development. Farmers are faced with the choice of trying to survive with what they have, or of selling their land at a lucrative price, which is becoming an increasingly attractive financial alternative.[2]

## *Case Studies:*

Since agriculture is entirely dependent upon the land, any sustainable agricultural development strategies within the Park must be careful to minimize environmental degradation. The few that have been developed in the Park have been termed benign agro–industrial projects because of the relative care taken in environmental preservation. A good example of such a strategy is fish farming.

### *A. Fish Farming*

The Park's climate is ideal for raising trout and salmon because of the availability of cold, clean water from streams, rivers, and springs. The idea is simple. The trout and salmon are bought from a fish hatchery and placed into a pond to be raised until they are of the appropriate size and quality to be sold. The fish require relatively low maintenance since they are already contained and can be fed all at once. Care must be taken in the summer when temperatures increase, and the fish could overuse the available dissolved oxygen in the lake, but this can be remedied by the installation of aeration and circulation pumps. There is a constant local demand for fresh fish of a good quality; some fish farmers allow local citizens to fish and keep any fish they catch for a price ($1 an inch at the High Peaks Base Camp in Jay, NY.) A fish farm could help attract tourists, while local restaurants in turn could promote the industry on their menus with "fresh, Adirondack trout and salmon."

The lower the initial costs, the more attractive fish farming will be to the farmer. Elaborate programs have been devised with concrete tanks, generators, electrical circulation pumps, and computer monitored fish feeders; all of these amenities require an initial investment of around $12,000. Obviously, for fish farming to become a viable means of income for the average Park farmer, a cheaper approach is needed. Therefore, a low-tech program has been developed in which farmers dig their own ponds which can be filled by a stream or spring. Most already have the equipment and labor necessary for digging. A few pumps would have to be added for circulation and aeration in warm months, but the initial investment is close to $1500.

According to one owner of a fish farm/restaurant combination in Jay, NY, there are two environmentally hazardous aspects about fish farming that must be addressed before a program can be initiated: waste pollution and thermal pollution. People in favor of fish farming have already designed ways to avoid any environmental damage. Fish wastes and excess fish food accumulate on the pond bottom which can deteriorate water quality. Thus, there are EPA, APA, and DEC requirements for pond recirculation so that any water that flows out of the pond must be of comparable quality to water flowing into the pond. In most ponds this is solved by installing a filter that catches the wastes at the water outflow point. The filter uses a screen that allows the water to flow through a sand packed filter which traps the remaining wastes. Also, ponds must be drained and dredged every three years to fully clean out the accumulated wastes. Opponents assert that the draining, dredging, and installation of water quality filters are too expensive and cumbersome. Proponents state that while a filter may be expensive initially, it will pay for itself after a few years of fish harvesting. The waste that is dredged out of the pond every three years is an EPA–approved fertilizer that can be spread on fields. Thus, the fish farmer can sell it or use it on his/her land without having to purchase additional fertilizer.

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[1] Ibid. 35.

[2] personal interview.

Thermal pollution occurs when the water in the pond is heated (because of increased surface area exposed to the sun) to a temperature that is higher than what it was when it entered the pond. Once it leaves the pond, warmer water will drastically alter vegetation and animal life in a stream that had been accustomed to lower temperatures. There are two inexpensive means to lower water temperatures. The farmer could plant trees around the lake to decrease the amount of surface area in contact with the sun, or the farmer could construct a water sprayer that would spray the water into the air to cool it. This sprayer could be attached to the generators that aerate the pond.

Opponents object to farmers digging their own ponds. They object to the expense and the disregard of aesthetics by digging a hole in the ground. With so many natural lakes in the Park, many wonder why these can't be used in place of man–made ponds. Those in favor of fish farming point out that the program is based on the control of the fish and their environment and that in using a natural pond, the quality of the fish is put at risk. Any time someone introduces a new species into an already existing ecosystem, they expose the existing population of fish and the new species to disease and competitive pressures that might kill off both species. Therefore, it may be better to start with an entirely new system.[1]

*Suggestions:*

Fish farming could be an attractive agricultural program for the future. Much of its success will depend on the availability of markets outside the Park. The local demand will always exist and the increasing influx of tourists will help those fish farmers already in operation to profit. Many worry that the supply in the Park may overcome the demand, but with the close proximity of New York City, it is hard to believe that this will occur. The New York City market could be extremely profitable for the Adirondack fish farmer. There is also hope that a fish processing plant could be built in the Park. Money would not have to be spent to process the fish at out–of–state plants, adding jobs within the Park and keeping the value of the fish within the Park. This plan is currently waiting for permit approval. If it succeeds, fish farming should be considered as a benign form of agricultural income for Park residents to pursue.

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[1] personal communication.

### *B. Community Supported Agriculture*

Another successful sustainable agricultural model that might easily succeed in the Park is called Community Supported Agriculture. There are four of these cooperatives located in Vermont. The goal of the CSA is to provide high quality, fresh produce to a community that in turn supports the farmer. Thus, the CSA brings the farmer back into the community while the community becomes directly involved in food production. Each member of the cooperative pays the farmer a designated sum before the growing season. This is estimated within a budget that is usually proposed in late winter. The budget outlines how much produce will be grown for the season and estimates the expected costs of production which include seeds, fertilizer, and labor. The shareholders receive a share of the harvest for each harvesting period, usually a week, in return for their capital input. Shareholders can own one or more shares depending on how much produce they need, but must pay accordingly at the beginning of the season. The number of collection periods per growing season varies with crop types. In some communities, shareholders must also contribute labor for the production and distribution of the crops. These tasks allow the CSA members to socialize and strengthen their relationships within the cooperative. This can only make the cooperative stronger.[1]

There are many benefits of the Community Supported Agriculture. First, there is a supply of fresh, organically grown produce that the shareholders can depend on receiving. Second, the CSA members help decide what will be grown, which helps decrease food waste. Third, the farmer has the much needed capital to start production before the growing season begins. This is crucial, for organically grown produce is expensive to maintain and harvest. Fourth, a CSA also provides a unique system in which the farmer and community can interact positively. Farmers are not neglected, and the community members work at an equal level. Finally, the farmer is given a salary which is figured into the budget.

Opponents to CSA's claim that the farmers cannot support themselves on the salary produced by the system. If a farmer grows more food than is needed by the community, the extra produce is donated to churches and other organizations providing for the needy. Opponents feel that the farmer should be able to sell this produce in other local markets that are not part of the CSA and should be able to keep this additional income. Furthermore, they believe that because of the recent recession, it will still be difficult for community members to provide the necessary capital to begin each growing season. This constant demand for money at a time of tight household budget constraints could eventually turn things sour and break down the CSA.

Proponents discount each of these claims. The CSA's have other jobs for farmers who have financial difficulties despite their salaries. For instance, the CSA located in Burlington, Vermont is associated with Gardeners Supply Company which provides farmers with part–time job opportunities. The cooperative will also help find the farmer another means of support within the community or with other nearby CSAs. As far as donating extra produce to charity, CSA proponents feel that this will further increase the CSA’s popularity within the community and help spread positive opinions about the cooperative.

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[1] Community Supported Agriculture brochure and personal communication with a worker at the Burlington, Vermont CSA.

According to a member of the communication committee in Burlington, getting the word out about the local CSA is the greatest obstacle to success. Any attempts to facilitate public familiarity with the CSA is important, even if it means donating food. Furthermore, those favoring CSA's point out that the farmer will incur even greater costs in trying to find additional markets for any extra goods produced. These costs would not be covered by the shareholders' capital. To help combat the problem of raising the necessary capital investments before each growing season, many CSA's have begun a monthly payment plan so that the farmer can get started. For example, the farmer may buy half the seeds or a portion of the manure and fertilizer so that the growing season is not wasted. As an incentive to paying early, the Burlington CSA offers discounts off the required $295 for shareholders for one growing season.[1]

*Suggestions:*

Community Supported Agriculture has succeeded in many areas of the country. There are approximately 30 across the United States today, prospering in areas as diverse as California, Michigan, and Vermont. According to last year's budget figures, the Burlington, Vermont CSA finished in the black despite the state's difficult climate and limited growing season. There is no reason to believe that the Adirondacks could not offer an equally suitable region for farming. After all, farming has been a major source of income within the Adirondack Park for years. A CSA cooperative would be ideal given the Park's division into hamlets, towns, and villages. Any one of these could pull together and organize its own CSA.

## III. FORESTRY

### *Current Trends:*

Forests are important to the heritage, tradition, recreation, wildlife, water supply, and economy of the Adirondack Park. Rural character is important to the quality of life within the Park. Many of the Park's towns were founded around a timber economy. Both privately and publicly owned forest lands are a source of many types of recreation including hiking, skiing, snowmobiling, and hunting. The Park's forests are home to diverse wildlife, which adds to the character and recreation opportunities within the Park. The clean and abundant water supply which is important for drinking, recreation and fishing is also dependent on the forests. Without healthy forests, there would be no control of the ground and surface water. They help collect, store, distribute, and regulate the water table through the binding of soils, the protection against wind and frost, and the prevention of erosion, landslides, and rockfalls. In addition, the forests are a major economic resource.

At the present time, forestry is the second most important industry within the Park, employing 10,000 people, 8,000 of them in the pulp and paper industry.[2] Over 75% of the 6 million acres of land which the Park encompasses are forested. Of these lands, 2.4 million acres are state-owned Forest Preserves. These are designated wilderness lands reserved strictly for recreational use. Logging is strictly prohibited within the Forest Preserves. Of the remaining 3.5 million acres, approximately 3.3 million are commercial forest lands which can be logged under regulation. Commercial forest lands are owned by individuals, companies, and clubs. A large portion, 26%, is owned by large pulp and paper companies. Another significant portion is owned by individuals and families. By mapping out an ecologically safe forestry plan and obtaining a permit from the APA one can wisely utilize the forests.

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[1] personal communication.

[2] McMartin, Barbara. *Citizen's Guide to Adirondack Forestry*, New York: State of New York APA, 3.

The land in the Adirondack Park has a high market value. Because of location, recreational opportunities, and the natural beauty of the Park, the land available for development is appealing to various people, and this raises its market value. Conversely, forest lands have low rates of return. The landowner must pay high taxes on the valuable land, in addition to the numerous other costs incurred in foresting. Timber yields are rarely much greater than the overall costs. Because of this, the land is often more valuable for development or recreational purposes. The landowner could sell the land to a developer for a much higher profit than the timber will yield. Additionally, the land could be rented or used for recreational means, thus earning a higher profit. This is especially true in the Adirondack Park where land values are higher than in other areas of the country. The following is a comparison made in 1990 of some forest land taxes in the area given in $/acre/year. The Forest Tax Law provides a certain percent exemption in a forest landowner's property taxes.[1]

As can be seen, the taxes on the forest lands in the Park are some of the highest in the region. For this reason, the forester makes only a small profit and cannot afford to follow more sustainable forestry practices. However, a sustainable policy is necessary if the forests of the Adirondack Park are to be maintained for continued use. One method of aiding the landowner in order to achieve more sustainable forestry is through easements.

Realizing the difficulties facing the forester, the NY State government has recently introduced an easement program. In some cases this program is successful. Unfortunately, all too often it is the nearby townships, themselves in economic trouble, that end up bearing the brunt of these easements. By the easement laws, the forester is offered a subsidized tax plan to help reduce some of the costs of lumbering the land. The owner sells to the state the development rights to the land, thereby assuring that the land will remain relatively wild. In return, the owner receives a tax break which is sometimes paid for by the state. The owner retains the right to lease the land and so can supplement income by leasing forest lands to hunters or for other recreational uses. While this sounds like a great plan, in the end it will not help to improve the current economic state of the Adirondack Park if the townships are suffering. Currently, the local taxpayer often has to make up the difference in the reduced taxes paid by the land owner. As a result, the the town and school taxes are diminished. It is evident that many of the towns within the Park cannot support these increased taxes.

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[1] Hanley, Joseph R. *New York Forest Policy Summary*, Albany: Empire State Forest Products Association (1991), 17.

Another major detriment to the forestry industry within the Park is the fact that most of the primary products are leaving the Park. The logs are cut and then immediately shipped out of the Park for further use; over 80% are being shipped to Canada. Not only does the Park lose the value of the wood but also the added employment that the secondary and tertiary products industries could offer. To pay the high costs of shipping the logs through the Park seems a waste when these products could remain within the Park to be processed further.

Current logging methods utilized within the Park are, in many cases, causing great harm to the forests. Often, because landowners cannot pay their taxes, they will cut all the valuable wood on their lands in an attempt to pay their bills. Unfortunately, all too often, economics are placed before sustainable practices. There are laws regulating clearcutting within the Park. A permit must be obtained from the APA in order to clearcut land. The limit on clearcutting is 25 acres. While larger clearcutting tracts may be obtained, these are relatively rare. The main problem is the ambiguity of the weakly-enforced clearcutting laws. One can go in and cut all of the valuable wood, leaving only debris and low value timber behind. But, because this refuse is left behind, it is not technically considered a clearcut. This severely depletes the value of the land.

Presently there is a trend towards Europeans buying forest lands within the Park. Europe is so timber poor that these owners tend to protect what they own better than the natives. Again, this is mostly due to the income differential. Obviously, Europeans who can afford to buy valuable land within the Park are not counting on the timber as their only source of income as many of the natives do. This in itself explains how and why the Europeans can afford to plan hundreds of years into the future and why the natives only look ahead to the next cut.

Another problem within the Park is the damage that logging does to the environment. In order to harvest timber, the environment has to be altered. Roads are built, permanently changing the ecosystem. Automobiles, recreational vehicles, trucks, and machinery compact the soils and release fumes into the air. They destroy younger trees and small growth and permit larger, faster clearcuts. Wherever there is forestry there will also be pesticide spraying. This affects the ecosystem at all levels: land, air, and water.

Although the forests of the Adirondacks may be termed among the "healthiest" in the nation, one can by no means call them safe. The above information illustrates the current dangers threatening the forests. The most sustainable practices are not being followed, and this will only lead to a deterioration of the industry in the future.

## *Case Studies:*

### *A. The Worcester Mountain Project*

The Worcester Mountains in Lamoille and Washington counties of Vermont are a forested open space that are both publicly and privately owned. The region supports both economic and environmental resources. Because of changes within the timber industry and increases in land speculation and development, the timber production, wildlife, and recreational use, as well as aesthetic and cultural values of the area are being threatened. In an attempt to find solutions to the economic and social problems while maintaining a healthy environment, the Vermont Natural Resources Council (VNRC) has helped create the Worcester Mountains Steering Committee. The committee is made up of volunteers representing many interests. Included in the committee are a local forester, a cider press owner, several landowners, and a representative of the Central Vermont Audubon Society. The group is working together to identify problems and find possible solutions by gathering local ideas and conducting resource analysis. The three goals of the project are 1) protect forest resources, 2) enhance the local timber economy, and 3) strengthen the communities by promoting recreational and economic opportunities.[1]

As of January 1992, the Worcester Mountains Project has led to the creation of maps containing information previously not available. These maps display land ownership patterns, wildlife habitats, soil patterns, and trails. The committee is presently finishing a report on the local economy as well as organizing a neighborhood group to initiate the local ideas suggested. The project is being funded through the Forest Legacy Program with additional Federal support. Approximately $13,000 to date has been spent to fund the project. This funding includes one VNRC member's salary as well as money spent to create maps and data bases.

The Worcester Mountains area is in many ways a small-scale Adirondack Park, and the two areas are being threatened by many of the same problems. The Worcester Mountains Project is in its beginning stage, but the initiation and progression of the project can be looked to for guidance in creating similar projects within the Adirondack Park. The principal complaints against the Worcester Mountains Project are from property rights owners. These people do not trust VNRC. They feel that the council's actions are subversive. However, these people have not organized any opposition. The majority of citizens agree with the efforts that are being made and the proposed goals.

### *B. The Adirondack North Country Association's Natural Resources Program and Committee*

The Adirondack North Country Association (ANCA) is a non-profit organization. It serves fourteen counties located in and out of the Adirondack Park boundaries in northern New York : Clinton, Essex, Franklin, Fulton, Hamilton, Herkimer, Jefferson, Lewis, Oneida, Oswego, Saratoga, St. Lawrence, Warren, and Washington. The organization interacts with state agencies, state and local governments, businesses, clubs, and residents of the area to identify economic, social, and environmental concerns in order to develop viable solutions. ANCA has established a Natural Resources Program and Committee that is working to strengthen the region's natural resource economy while preserving the natural environment. One of the committee's main areas of concern is the region's forest and wood products industry. Education, technical assistance, expansion, funding, and relocation programs are all goals of the committee in an attempt to promote and develop the timber industry. In order to ensure continued growth of this industry, the Natural Resource Committee is working to identify problems and potential opportunities within the forest and wood products industry.

ANCA's Natural Resource Committee is currently working to increase public awareness of the importance of the north country's forests to the region. It has created brochures and programs in conjunction with other ANCA committees. One project created by ANCA's Agricultural Committee and Natural

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[1] Shallow, Jim. *Vermont Natural Resources Council's Worcester Mountains Project* (May 1991).

Resources Committee was the Farm and Forest Tour Brochure. The brochure lists fairs, museums, and interpretive trails within the region that people can visit. This project was funded by the State of New York's Economic Development Department. The cost of producing the brochure was $3,000. The brochure was created in an effort to increase public knowledge of the multiple values of the forest lands. It is important that visitors, businesses, and residents of the Adirondack Park recognize the multiple values that forests offer and that they appreciate the events taking place within the Park's forests. Education and understanding are important steps in identifying and solving the problems the Park's forest and wood products industry are facing today.

One objection to forestry education programs is the cost of such programs. These costs, however, are outweighed by the benefits that they have produced. Not only has awareness of the importance of forests increased, but the Farm and Forest Tour Brochure has helped to provide recreation and learning opportunities for Park residents, schools, and visitors that many people were previously not aware of.

The only other objections to ANCA's Farm and Forest Tour Brochure were that the brochure was not properly distributed and that the design of the brochure was not "eye catching". ANCA is aware of these criticisms and has made adjustments in the planning and creation of new brochures.[1] For further information contact: Adirondack North Country Association, 183 Broadway, Saranac Lake, NY 12983.

### *C. A Wood Products Development Strategy For Northern New York*

In May 1991, Yellow Wood Associates, Inc. of Vermont published *A Wood Product's Development Strategy For Northern New York*. This report was requested by ANCA and The North Country Regional Economic Development Council. The report is a strategy which provides "the economic development and natural resource community in northern New York with a detailed plan for strengthening the wood products industry in Clinton, Essex, Franklin, Jefferson, Lewis, and St. Lawrence counties over the next decade."[2] Funding was provided by ANCA and the New York State and Urban Development Corporation. The total cost of the project was approximately $47,000.

There are two important underlying aspects of the strategy. The first is that this project is one of the first attempts to gather and organize existing knowledge and data on the present conditions of forestry in northern New York and to identify the opportunities for development and improvement of the forest industry. The strategy is an attempt to understand the existing regional conditions well enough to identify the problems and develop realistic solutions to these problems. The need for more research and data on forestry activities and conditions in the Adirondack Park has been addressed by many of the reports conducted by state and local agencies. Little can be done to solve existing problems if there is a lack of information and understanding of the issues.

The second component is that in identifying the problems and solutions, both state and local people were included in the research and decision making. The research was conducted by the consultant group, the Yellow Woods Associates, Inc. and an advisory committee formed by The North Country Regional Economic

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[2] Yellow Wood Associates, *A Wood Products Development Strategy for Northern New York*, Yellow Wood Associates, Inc. (May 1991), 1.

Development Council. The Advisory Committee included representatives from state and regional organizations, various interest groups, businesses, and manufacturers including: NYS Department of Economic Development, Adirondack Park Agency, Tug Hill Commission, North Country Alliance, Empire State Forest Products Association, Tupper Lake Veneer Corporation, and Niagara Mohawk. Members of the Advisory Committee reviewed the work of the consultants and had direct input into the direction of the research, and upon the decisions made.

One main problem existing in the Park today is the lack of communication between state organizations, residents, and business people. In many cases, the local voice is not heard. Often, representatives residing outside the park create new programs and regulations without first consulting the local people for advice and opinions. In short, decisions about the Park are made by people who have little understanding of the actual conditions and activities within the Park. It is essential that Park residents become more involved in the decision making that will affect their lives. Local understanding and viewpoints of problems and solutions must complement outsiders' expert advice in creating any type of strategy or project to improve economic, social, and environmental conditions.

Although there were mixed opinions of the recommendations made in the Yellow Wood Associates' strategy, the report is considered to be among the best collections of information and recommendations for forestry in New York's North Country. Material from the report has already helped the ANCA get an additional $132,000 in grants for their forestry program. Part of this money will be used to employ two full time forestry/economic experts that will be working with local organizations as well as ANCA to solve local forestry problems. It is already known that these people will be working with the North Country Alliance on their project to introduce secondary wood product industries which will provide employment to local residents. Another commonly made objection about research or reports of this type is that they are expensive and produce no results. As can be seen, this report has provided valuable information and is paying for itself. Often, lack of funding is a barrier to conducting such studies and surveys for information and data. The creation of the Yellow Wood Associates' strategy has shown that if made a priority, the necessary funds can be found.

### *D. Tug Hill*

Another area which has much to offer the Adirondacks is the Tug Hill region, located only a short distance to the west of the Park. Similar to the Adirondack Park in many aspects, the Tug Hill region is approximately 1/4 the size of the Park, contains 41 different towns and 21 villages, and has a total population of 112,000 people. Eighty-eight percent of the land within the region is privately owned. At the request of local citizens, the Tug Hill Commission was formed in 1972 by the New York State Legislature in order to work with local government and organizations to help secure the region's economic and environmental future.[1] Much of the commission's work is directed towards strengthening the region's forest industry. The Tug Hill region has been recognized by the congressionally-mandated Northern Forest Land Study as an integral part of the densely forested parts of New York, Vermont, New Hampshire, and Maine.

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[1] New York State Tug Hill Commission. *The Tug Hill Region: Preparing for the Future* (February 1976).

At the forefront of the commission's recommendations were public involvement, education, and preservation of the Tug Hill region. A summary of the recommendations is given in a report entitled "The Tug Hill Region: Preparing For the Future." The major long range goals for forestry were to develop and improve forests, to encourage the long term health of the wood-based industry, to secure habitats for fish and wildlife, and to provide for selected, low-intensity recreational use.[1]

Maintaining a healthy economy within the region necessitates the growth of forest products and long term programs that would strengthen the regions economy through forestry. Forests are a valuable asset which are neither being utilized nor protected to their full potential. If improvements can be made in the forest industry within the Park, the overall economy will be strengthened. The Commission suggests introducing secondary wood product industries to the area in order to employ local labor, reduce transportation costs of shipping wood out of the Park, and utilize local resources in a non-polluting manner.

As is the case throughout the Adirondack Park, there is much controversy over governance of the region. Like Adirondackers, the residents of the Tug Hill region "wish to be independent and to decide [their] own future."[2] Equally important to them is to "let local government do the job."[3] The commission is careful to recognize the fact that "decisions made in one forested town affect the surrounding towns as well."[4] This important reality must be kept in mind when any planning takes place within the Park. Local residents strongly support the Tug Hill Commission. Residents vote every five years to decide whether or not they want the commission to receive further funding. If the public votes to maintain the commission the state will appropriate the proper funds. Last year the Tug Hill Commission was allocated approximately one million dollars for its projects. Seven percent of these funds is used for forestry programs. This amount, however, does not include donations made by individual towns and organizations.[5]

The Commission feels that it is important to utilize the forest resources, albeit in a careful and wise manner. Its report clearly states that it is necessary to

> avoid the forest preserve concept for the central portion of the Tug Hill region. The area should be judiciously and carefully managed for multiple use in order to maximize forestry opportunities, including wood use, and the quantity and diversity of Tug Hill's fish and wildlife resource. 'Locking up' this area will merely inhibit the development of active, creative management programs for plant and animal life which the region needs.[6]

Additionally, the Commission makes the protection of prime forest land from the pressure of development a priority. As is the case in the Adirondack Park, there is an urgent need within the Tug Hill region to alleviate some of the costs of forestry. The Commission recommends that "the New York State Legislature reinstate a revised

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[1] Ibid, p. 13.

[2] Carl, George E. and Cox, Sidney T. *The Tug Hill Region: Preparing for the Future* (1976), 11.

[3] Ibid, p. 14.

[4] Ibid, p. 29.

[6] Ibid, p. 38.

Forest Tax Law. The State Board of Equalization and Assessment would then set 'forest value factors' under the revised law that will permit continued dedication of Tug Hill region lands to growth of forest products."[1]

There has been little opposition to the programs and recommendations made by the Tug Hill Commission. As explained above, the local public must vote to keep the Commission working. In addition, the Commission “field tests” its recommendations before it publishes them, meaning that it gets local opinions first, then makes any needed modifications based on the needs of the public.

***Recommendations:***

1. Reintroducing secondary and tertiary wood products industries within the Park would benefit both the Park and the State of New York. Presently, there is a lack of saw mills, kilns, and wood product industries in the Park and throughout the surrounding area. Raw timber from the Adirondacks is shipped out of the Park without having any type of value added to it. Over 80% of the raw lumber from the Park is shipped to Canada. Introducing mills, kilns, and wood products industries would increase employment, increase state and local tax bases, and reduce the high costs of transporting the raw timber. Small shops involved with woodworking, carving, building, or sculpting could also be introduced and promoted in the area. Creating the opportunity for such businesses to locate within the Park or surrounding areas should improve the economy and the living conditions of both Park and state residents. In order for this to take place, this type of business must be attracted to the area. Currently, the North Country Alliance is working to attract secondary wood products industries to northern New York.

2. Multiple-use methods are a healthy alternative to clearcutting. Not only are these methods more efficient, but they preserve the forest lands better as well. The five aspects of Multiple-Use Forestry are: 1) cut is equal to growth, 2) long rotations (100-200 years), 3) uneven-aged management, 4) ecological balance, and 5) extreme care to avoid damage to soil.[2] Compared to current forestry practices within the Park, multiple-use practices would yield a higher value for a longer period of time while protecting the environment. A healthy environment should be a high priority of multiple-use programs in order to ensure long-term health of both the forest lands and the forest industry. In order to install these practices, however, the landowner in the Park will need aid and economic incentives from the state government. In the long run, the overall benefits including increased and prolonged yield, increased profits, and improved conditions in the forests, will far outweigh the costs.

3. It is important that visitors, businesses, and residents of the Park recognize the multiple values that forests offer, and that they appreciate the events taking place within the Park’s forests. Education and understanding are important steps to identifying and solving the problems that the Park’s forest and wood products industries are facing today. An example of an activity designed to increase awareness of the importance of the forest industry is the

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[1] Ibid, p. 39.

[2] Robinson, Gordon. *The Forest and the Trees* (1988), 70-71.

creation of the Farm and Tourist brochure by the ANCA.

4. There are several actions among the recommendations for the Tug Hill region that could be very helpful to the forest industry in the Adirondack Park. An investigation of the best uses for low quality materials within the Park is necessary. Education and participation of the natives in different forest related programs would also aid the industry. And the type of local involvement in forestry planning that has played an important role in the Worcester Mountains Project could be repeated in other areas.

5. Incentives must be offered to outweigh the high costs of forestry within the Park. If this is not accomplished, forestry will continue to decline as people sell their land to developers or clearcut in an attempt to earn a quick profit. The easement program could be valuable if proper funding can be obtained from the state. Other tax incentives such as that offered by the Tug Hill Commission could also be employed within the Park.

6. The multiple values of the forest lands are an important aspect to the Park. By combining compatible uses of forest resources, the lands can be used more productively and profitably. For example, decreased lumbering during the winter season would allow an increase in recreational usage for activities such as snowmobiling and cross-country skiing. Such a combination of uses would benefit not only property owners in forested lands, but local merchants dependent upon tourism as well.

7. The need for more research and data on activities and conditions in the Adirondack Park has been addressed by many of the reports conducted by state and local agencies. Little can be done to solve existing problems if there is a lack of information and understanding of the issues. The main barrier to conducting studies and surveys for information and data is lack of funding. If made a priority, the necessary funds can often be found.

## IV. MINING

### *Current Trends:*

There are presently two major mineral producers operating in the Adirondack Park (not including sand and gravel producers): NYCO Division of Processed Minerals, Inc. producing wollastonite, and Barton Mines producing garnet. Currently, of the the five domestic garnet mines active in the United States, three are in New York State, the largest of which is located in the town of North Creek (Warren County). Barton Mines Corp. is producing garnet for its use in coated abrasives and for glass grinding and polishing. In the late 1970s Barton relocated its North Creek operation to Ruby Mountain with a permit from the Park Agency. Due to tough economic times, Barton Mines Corp., still one of the major employers of the area, has shrunk its number of employees from 130 (1983) to about 90. The second major source of garnet within the Adirondack Park occurs in Essex County in the towns of Willsboro and Lewis. Here, however, the primary mineral extraction is wollastonite; garnet is merely a product found in the tailings of the wollastonite processing.

Presently, New York State wollastonite mines account for approximately 45% of the total world production of this increasingly important resource. The US Environmental Protection Agency has embarked on a decade–long program to eliminate asbestos from consumer products in the United States. Wollastonite has been shown to be an effective replacement for short fiber asbestos in friction products such as brake linings and clutch plates. Other major uses of wollastonite include filler in ceramic tile, marine wallboard, paint, plastics, and refractory liners in steel mills. Last spring the NYCO Division of Processed Minerals, located in Lewis and Willsboro, unveiled a $14 million plant upgrade which would increase the plant's capacity by 50 percent. This increase in capacity will hopefully increase their world market share. In addition to their plans of plant modernization, the APA recently approved the reclassification of the Oak Hill area in the Town of Lewis from one of Resource Management to one of Industrial Use. Recent exploratory core drillings revealed that a viable economic deposit of wollastonite ore exists in this land. Unfortunately, the NYCO faces a rather lengthy process in order to obtain a permit from the APA for mining within the area. Wollastonite mining and processing within the Park employs up to 150 people and carries an annual New York State payroll of over $3,500,000, most of which is paid inside the Park.

Despite the generally healthy conditions of these major mineral producers, most mining activity which dominated Park industry early in the century has been phased out due to the development of richer ore bodies in other parts of the country and the increased competition within the free world market from countries like Brazil. In fact, based on 1989 projections, a 10.7% loss of employment by the mining industry will occur within the Adirondack Park by the year 2000.[1] This decline should not be surprising considering that between 1970 and 1980 the total percentage of people in the Adirondack Park employed by mining dropped from 6.7% to 4.0%.[2] The drop in mining employment can largely be attributed to the loss of the steel industry with the 1971 closing of Republic Steel Corporation in the Town of Moriah, the 1979 closing of Jones and Laughlin Steel Corporation at Star Lake (Towns of Clifton and Fine), and the closing of Republic Steel Corporation in Port Henry. Naturally, the closures have had a very negative impact on the employment and fiscal base of all of these hamlets. Approximately 600 jobs were lost as a result of the closing of the Star Lake operations.[3] With the departure of Republic Steel in Port Henry came the loss of 400 jobs as well as 60% of the hamlet's tax base. A natural accompaniment to the decrease in employment and tax base was a decrease in these hamlet's populations, most notably in the towns of Clifton (35% decrease between 1960–1986) and Port Henry (13.3% decrease between 1960–1970 and 5.4% decrease between 1970–1980).[4]

## *Case Studies:*

With the exception of NYCO's proposed $14 million plant upgrade in wollastonite mining and processing in the towns of Lewis and Willsboro as previously cited, there are no other case studies of successful mining operations within the Park. Unless other globally unique mineral deposits such as wollastonite are found in the Park, mining will not play a vital role in the economic future of the Park.

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[1] The Adirondack Park in the Twenty First Century, Technical Reports, vol.2, report 25, table 11, p.26.

[2] Ibid table 9. p.23.

[3] Economic Development Needs of the Adirondack Park, Oct 20, 1983 p.37

[4] The Adirondack Park in the Twenty First Century, Chapt.4, p.41.

***Recommendations:***

The most obvious question arises: if mining is no longer economically feasible within these hamlets, what other economic opportunities exist? Economic diversity is the key to a healthy economy. With the closing of Republic Steel in Port Henry, the community should be attracting a number of smaller, more diversified industries. Property formerly owned by Republic Steel could be redeveloped into a linear industrial Park, recreation area, housing and mixed commercial use area allowing for public access along the entire Port Henry shoreline from the New York State Boat Launch to the Bulwagga Bay Campsite.[5] However, this type of redevelopment must be in keeping with Port Henry as a historic center. Within the town there are many important historic landmarks. It is unfortunate that they are not complemented by equally attractive public areas. A public space design that links these historic features, improves their appearance and enhances the quality of pedestrian space would bring increased tourism to Port Henry. Essentially, strategies for bringing out the inherent charm of this historic town are what make tourism an economically viable option for this hamlet.

Tourism, unfortunately, is not an option for a hamlet like Star Lake. Unlike Port Henry, Star Lake does not have a section of the town that could be considered a downtown area. Instead, this town has sprawled out along Route 3 and around the lake. In addition, access to and views of the lake are rather limited to the public. Currently, there are no overnight accommodations in the hamlet. Rather than focusing on tourism, Star Lake should focus on strengthening its role as a regional service sector. It already has some essential facilities to offer surrounding communities such as a school, a hospital, a recreation center, a bank, and a range of retail and professional services.[6] Star Lake may also want to consider developing overnight accommodations, such as a small inn or a bed and breakfast business. A similar economic strategy of providing regional services is already working in the hamlet of Lyon Mountain. Once a thriving mining town, this 800 resident community now runs a 150–bed minimum security facility, installed by the NYS Department of Correctional Services. The inmates from this facility are able to provide labor on certain public works projects. Mine tailing piles are still a very prominent feature of the Lyon Mountain landscape. There is potential for this material to be used as a sub–base for road work and in building blocks. The site of these pilings could provide an opportunity for future development and reuse if a market interest were generated by the hamlet.[7]

In summary, with the exception of wollastonite extraction and processing, current economic trends within the Adirondack Park are generally moving away from mining activities. This is due to the discovery of richer ore bodies in other parts of the country and with the increased competition from other countries in the free world market. The principal economic strategy to be implemented in the communities most affected by the reduction/elimination of mining is to strive for economic diversity, focusing on such areas as tourism, light industry and public service.

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[5] Hamlets of the Adirondacks Development Strategies 1985, p.27

[6] Ibid p. 33

[7] Ibid p. 25

## V. LIGHT INDUSTRY

### *Current Trends:*

In the eyes of many Adirondack Park residents light industry is the panacea for the economic crisis of the region. It will bring more employment for residents as well as providing non–seasonal work that does not require highly trained individuals. Additionally these jobs will create the opportunity to "work your way up the ladder," an option which is presently missing in the minimum–wage job market.

Light industry has been touted as the best way to improve regional economics. It should serve to provide a stable monetary influx to the hamlets, as well as much needed year-round employment. What will follow may also be a divergence from using tourism as the basis of the economy. Such a transition is especially beneficial since tourism is not always a stable basis for the economy, and in a recession tourist revenue often declines. Light industry will also serve the purpose of maintaining the local work force, providing employment opportunities available for the youth of Adirondack Park. An influx of jobs would also aid in stopping the growing trend of residents to commute outside of the Park in order to work and of young Adirondackers emigrating from the area in search of employnent.

It should be noted that the current state of industrialization in the Adirondack Park region is not very advanced. Several regional industries have closed down, such as the Tupper Lake Veneer Corporation which closed March 1991. The decline in the number of operating industries is primarily a result of the current national recession. Therefore, any phenomena which affect the economy of the Adirondacks must be viewed on a grand scale and interpreted with the recession in mind. For example, the Tupper Lake Veneer Corporation was forced to shut down because of a decline in orders for its products resulting from a decline in the general construction industry.

There are several major obstructions to the realization of industrialization. To begin with, the myths surrounding the semantics of industrialization need to be dispelled. Campaigns that emphasize the low environmental impact of controlled development need to be implemented. Another problem facing prospective industries in the Adirondack Park today are the strict zoning laws. These restrictions often overwhelm most investors since they range from acquiring a plot of land to eventually maintaining the industry. In addition, the state sets the zoning laws so strictly that there is little to no land available for industrialization. Consequently, there is a general belief that government intervention is the root of economic stagnation within the Park.

The geography of the Adirondack Park also serves as an impediment to industrial development. It is extremely difficult to attract light industries when there is the inaccessibility of major transport routes coupled with a small work force with fixed incomes. Also, because of the size of the towns, many feel that the decision of where to locate is decided simply by the whims of the developers. These feelings many times reflect the disparity that exists between development inside and outside the Park boundaries.

Another cause of the stagnation of the industrial sector in the Adirondack Park is the lack of cooperation received by all the governing agencies. Although the reasons for this vary, economic developers are frustrated as their clients lose interest in the Park as soon as they realize the amount of "bureaucratic red tape" that exists. Such regulation increased the startup costs of any business and thus serves as a deterrent to investment.[1]

Although tourism provides a significant influx of income, it usually only offers the residents seasonal work at minimum wage. Once the tourist season is over, the locals are often forced to collect unemployment insurance for the rest of the year. This situation is the Achilles heel of the local economies, rendering them unable to provide their residents with the services that they expect and need.

The emergence of the "sleeper towns" is another phenomenon affecting life in the Park. These communities serve as hosts for a large number of individuals who commute to periphery areas for work. This development has become quite a problem for many hamlets since there is a rise in taxes based on the elevated residential assessments. Typically, the service sector of the community suffers as do the economically disadvantaged families who cannot afford the increased taxes. Subsequently, businesses are repelled by communities with low concentrations of industries since they feel that they will have to pay disproportionately high taxes.[2]

Fortunately, several governing bodies have realized that there is a need for more effort in attracting industry. Specialty groups such as Lake Placid's new "Jobs for Adirondackers" group help to boost the morale of citizens and officials alike. This organization was founded to harness the energy of residents in order to ameliorate the economic condition of the region. One example of its efforts is the campaign to construct a multi-million dollar training facility for luge in the Olympic Park.[3]

Additionally, there has been the birth of a new program to aid in the development of the Adirondack region - the Adirondack Business Entrepreneurship Development Center, which will serve Franklin, Clinton and Essex counties. The center will serve to provide existing local businesses, as well as local residents seeking to establish a small business, with necessary training and technical assistance.

### *Case Studies:*

#### *A. Wilt Industries*

Wilt Industries, located in Lake Pleasant, is a good illustration of the typical Adirondack Park light industry. Founded in 1950 by William Wilt, it now provides many places in the United States with specialty equipment. Wilt Industries produces high heat furnaces which are used for research and conductor industries nationally. Production is done on a custom order basis, the main area of demand coming from the research sector of industry. One area of focus is the manufacture of glass products, equivalent to such well known products as those made by Pyrex. Currently, Wilt Industries is contracted to provide equipment for companies such as the International Bureau of Health and General Motors. The firm employs six people full-time in positions that require primarily on-the-job training. Work is done on an hourly wage system, for which the amount earned is above minimum wage and is directly related to years of experience. The expected growth rate is not known but is expected to follow the trends of the national economy.

No toxic waste is produced, and the amount of recyclable waste produced is similar to that of any other small business. Noise pollution is not an issue; interviews with surrounding residents revealed no complaints. Instead, locals actually showed a high rate of satisfaction with Wilt Industry as being a model of the potential low impact of industrial development. The firm is very inconspicuous with a muted sign by the roadside announcing its presence. Access is by way of a long drive–up, so the industry is in no way visible from the road. Overall, its environmental impact is considered to be negligible.

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[1] The Adirondack Park in the Twenty First Century, Technical Reports, vol.2, p.98.

[2] Ibid, p.99.

[3] **Set 14, p.31.**

*B. Southport Management*

This case study is a little different from the rest in that the company addressed here is not yet currently active. Instead it is a factory that has been proposed and almost fully approved. To be located in the Village of Mineville, this Canadian company will build a 130,000 square foot industrial structure and will initially employ at least 150 people. The plant will produce office equipment and will be "a hell of a shot in the arm that we really need," as observed by one resident. The employment figures are projected to increase about 30% over the next few years following Southport Management's proposed opening date of April, 1992. Its opening will be a great help in combatting the high level of unemployment that plagues Moriah, now estimated at 13%.

The factory will produce mainly cabinets and will be located on a 33-acre parcel of land in a primarily residential area. Pollution is expected to be minimal since after the cutting and stamping of the steel, an electro-static powder is sprayed on the item. The electric charge eliminates pollution of the powders which are then baked to form a strong coating. Local expenditures are projected to increase by $250,000, and though no formal contracts have been made, the company has indicated interest in recruiting employees primarily from the local workforce.

Welcoming industries from Canada is popular among the Adirondackers since many Canadian companies have lately been looking for places to relocate. Southport Management is an excellent example of how well the Adirondack Park Agency, the Department of Economic Development, and other local agencies and individuals can work together when necessary. The approval for Southport Management was extremely speedy, taking about five weeks, and hereafter could serve as the needed model of a successful cooperation of local and regional legislature. This case has inspired other areas in the Adirondacks to step up efforts to attract Canadian interests. Elizabethtown officials are now investigating the possibilities of providing relocation incentives for many of the aforementioned corporations. Efforts have already been made to create plans for the necessary changes that would be required for the incorporation of a new industry, including such needs as traffic detours, expanded sewer facilities, and modes of industrial waste disposal. A major advantage that Elizabethtown has over most of the other hidden towns of the Adirondacks is its close proximity to the Northway.

***Recommendations:***

It would be very helpful for there to be more agencies within the Park which would focus on attracting industrial development. These organizations could combat the current lack of information available to any interested developers by preparing introductory packages where all the statistics requested would be available. These packets would include such information as site availability, time and costs of complying with regulatory procedures, and models of successful business enterprises.[1]

When making recommendations for the need of more stable full year job opportunities, it is important to remember that there are certain limitations. These jobs have to be at the skill level where the average resident can be trained to fulfill the duties presented. In the course of the interviews there were hopes expressed for the emergence of clean industries, mainly in high–technology electronics. Although such jobs would require greater levels of education and skills, only this type of employment will provide the high incomes desired by Adirondackers.

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[1] Ibid, p.98.

# *ENVIRONMENTAL CONCERNS*

## VI. WATER QUALITY

### *Current Trends:*

In the towns of the Adirondacks, water plays an especially crucial role in the lives of the residents. Lakes, ponds, and streams add to the quality of life of the residents, providing a local source of drinking water, a center of recreation for tourists and residents, and a home for vibrant aquatic ecosystems. Many species of fish depend upon the rivers and lakes of the Adirondacks for spawning and rearing habitat. To the residents and visitors of the Adirondacks, the quality of the water – as an integral part of the economy, health, and environment – is of utmost importance. When asked to rate the importance of water quality in their hamlet, residents responded unanimously that the quality is very important to the quality of life, and in most cases water was rated as very important to the economy, pertaining particularly to tourism. A poll commissioned by the Adirondack Museum completed in the fall of 1991 found that residents and visitors agree that the pollution of lakes and streams is the most serious problem facing the Adirondack Park.[1]

A majority of the hamlets interviewed report excellent to good drinking water. Many of the hamlets derive their drinking water from wells (30% of the population) or lakes where little or no chlorination is necessary. Others rely more heavily on chlorination and/or filtration treatment. Residents listed a number of threats to the water quality that presently exist, the main problem being old or faulty septic systems which are polluting rivers or lakes. In many of these cases, new central water systems have already been installed, but pockets of either residences or recreational camps continue to operate with faulty or leaking septic tanks, or saturated leaching fields. Other problems cited are cultural eutrophication, sedimentation, algal blooms, milfoil growth, salt runoff from roads, storm runoff, and continued shoreline development.

The main complaint concerning state agencies in the area of water quality is that the Adirondack Park Agency is solely a regulatory agency, the DEC is simply an enforcement agency, and the Health Department does a little of both. Many people feel that no proactive efforts are under way to assist the hamlets with existing problems, and the two agencies do not cooperate and communicate effectively. Furthermore, there appears to be a need to increase agency staffs in order to quickly assess regulatory needs and adequately and fairly supervise compliance. The APA has a mandate that is somewhat limited to legislation such as the Scenic Recreational Rivers Act. The public has made aesthetics a priority at the expense of protecting less evident damage to aquatic ecosystems. Furthermore, with some 15,000 individual septic systems scattered around the Park, the DEC estimates that it would take 40 officers 30 years to test all the sites.[1] Some residents expressed the concern that Park–wide standards do not apply to all towns, particularly those which presently have access to water of excellent quality and are unable to afford large central sewage and water treatment systems. In addition, the state's "clear roads" policy necessitates what some believe to be excessive and unnecessary levels of salt and sand on little used roads where most people have four–wheel drive vehicles. Others note instances where the APA has notified a town that it needs to alter or renew its water system without explaining why the changes, for which costs are often burdensome, must be made.

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[1] Set 32, page 15

Water pollution is often difficult to identify and rectify because only about 10% of pollution is estimated to come from point sources (sources that are local and readily identifiable); the remaining 90% is a result of air fall and run–off that is difficult to isolate and correct.[2] Despite the lack of proactive programs, the DEC has made some progress in certain areas. Activity in Upper Saranac Lake recently addressed the problem of excessive phosphate accumulation by improving a permit process for systems discharging over 1000 gallons per day and working with a fish hatchery to limit its discharges into the lake. The ordinance will not affect small private residences; however, town officials said they have plans to offer free septic system testing for those town residents who want their system checked for malfunction.[3]

Another problem with water quality regulation is that the current regulations to do not consider the cumulative effect of development. The APA is not a planning agency, it simply evaluates single proposals. The result is an area in which every individual dwelling complies to the standards; however, that area may run into problems when the maximum number of septic tanks are installed, or when further construction takes place within the watershed. As Barbara Bedford, associate professor at Cornell University, said in a talk to the APA, it is necessary to find ways to analyze cumulative impacts, defined as "individually minor, but collectively significant actions taking place over a period of time," and to take a macro look at a project to see how human activity might affect watersheds and nutrient sediment levels in waters.[4] A member of the APA noted in an informal interview that at this time it is not known how sensitive each individual body of water or watershed is to the effects of development, because studies of development in the watershed and changes in the water quality have been done independently of each other. Thus, studies in the future should focus on the cumulative effects of development on water quality over time, so that the sensitivity of individual areas to watershed development can be identified.

Because the state is already overloaded with demands concerning water quality, perhaps one solution to the problem of water quality in the Park is citizen involvement. Following are some examples of concerned citizens coordinating themselves in an effort to better understand and protect the water quality of their portion of the Adirondack Park.

### *Case Studies:*

#### *A. Lake Association Programs*

The Technical Services and Research office at DEC headquarters in Albany coordinates the Lake Association Programs throughout the state. About one third of the 95 organizations are located in the Adirondack Park. The program began in 1986 with 25 pilot associations and has grown every year. Each association consists of about 4–12 volunteer members of the community who join together to monitor local lakes. The state provides the basic training and equipment necessary to monitor six basic parameters: nitrates, phosphorous, chlorophyll A, pH, specific conductants and color, as well as transparency, temperature, oxygen and lake levels. The associations monitor the lakes throughout the summer months (every other week from June to October), then submit their data to the DEC for analysis. The DEC then returns its findings and a summary of the situation. All this is done at no cost to the Lake Association. The initial cost of the program was about $80,000 in 1986, which includes all start–up and equipment costs. In 1991 the program cost approximately $120,000 to maintain.[1] Scott Kishbaugh, coordinator of the program, said that the program has been “absolutely” successful. It has quadrupled monitoring and fostered a better understanding of water quality throughout the participating communities. Although the program is relatively new, it should provide the kind of cumulative data which will help establish long–term trends and improve the ability of the DEC and the residents of the Park to maintain the desired condition of its lakes.

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[1] Levigne, Wiley, Phone interview, November 15, 1991.

[2] ibid.

[3] Russell, Matthew. Adirondack Daily Enterprise, 5/31/91.

[4] Plattsburgh Press-Republican. May 14, 1991.

For further information contact Scott Kishbaugh, Technical Services and Research (DEC) Albany, NY (518) 457–7470

### *B. Boquet River Association (BRASS)*

The Boquet River Association, Inc. (BRASS) is a perfect example of community organization in which citizens coordinated program to monitor the water quality of their area. BRASS, located in Elizabethtown, Essex County, started in 1984, with a meeting of concerned citizens and elected officials to identify the most immediate problems concerning the Boquet River, which originates in the high peaks of the Adirondacks and empties into Lake Champlain. A random survey was sent out to landowners, gathering their input. The major problems they have identified are: bank erosion; destruction of fish habitat; some failing septic systems; state law holding landholders liable for swimmers; and little public recreational access. An estimated maximum of 79,000 tons of sediment per year are being dumped into the river and into Lake Champlain.[2] By weight, sediment is the largest single pollutant reaching Lake Champlain.[3] In 1987, the DEC ranked the Boquet’s non–point source pollution as “severe,” and a “priority water problem” in a five–county region.[4] Also, pollution due to human waste, dairy farm runoff, and erosion are evident.[5] The Boquet River Association’s goal is to overcome all of these problems, and to continue education of the watershed inhabitants. BRASS consists of 5 board members appointed by the 5 towns in the watershed and 7 board members elected by the membership. There are about 150 members, most of whom are landowners along the river.

The organization, a group of people committed to maintaining the quality and economic viability of their water, has been monitoring the river for the past four years. Trained adult samplers now monitor 25 sites on the Boquet river. (In the past, students from local schools were trained and did the testing.) This year the group received money to train more people, so that there are now 6 sites on the AuSable River which are also monitored. These trained citizens gather samples to measure properties such as temperature, pH, turbidity, specific conductivity, phosphorus, and fecal coliform throughout the year. Once the samples have been collected, a BRASS member analyzes the samples at the BRASS lab, located in a local town's sewage treatment facility.

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[1] Kishbaugh, Scott. Phone interview, November 20, 1991.

[2] Ulmer, Robin. Lake Champlain Basin Information. Oct,1991 Issue No. 1, p. 2.

[3] ibid

[4] Background information from the Boquet River Association, Elizabethtown, NY.

[5] ibid

In order to stem erosion, BRASS has planted 200,000 willows along the banks of the Boquet river. Controlling sedimentation in the Boquet River is particularly important as the river is a spawning habitat for fish. BRASS gets contractual funding yearly from the 5 watershed towns and the County, and has yearly membership fees. Other money is raised from state and national agencies, and from grant proposals to private foundations. In April BRASS submitted funding requests to two foundations in an attempt to obtain NY state certification for their laboratory. Certification would mean that their testing data would have "more clout with various agencies and could very well help set priorities for the type and timing of agency assistance for Boquet River projects."[1] BRASS is making attempts to communicate with other similar associations or groups of citizens concerned about the water quality. All of the river communities face many of the same problems, and they need to communicate in order to best protect the quality of the water in each individual area. The towns of Jay and Black Brook recently installed a new sewage treatment facility, and monitoring done on the AuSable River by members of BRASS showed that fecal coliform was decreased by roughly 3 to 4 trillion bacteria per day.

For more information, contact the Boquet River Association (BRASS), Elizabethtown, NY 12932 (518) 873–6301.

### *C. Hudson Headwaters River Watch*

Another organization which involves citizens in the monitoring of water quality is the Hudson Headwaters River Watch Network, which is coordinated by the Adirondack Interpretive Center in Paul Smiths. The Network involves four local schools, from eighth grade up, in taking samples of river water, and analyzing the samples. The students test for dissolved oxygen, temperature, pH, nitrates, the effects of road salt, and fecal coliform. The students from each school take samples at around the same time, analyze the samples, then compare their data through a telecommunications system at WCFB, the local television station. The River Watch Network offers a unique opportunity for students to be directly involved in monitoring the environmental health of their area. The students learn what sort of resources exist in the Park, and will be able to compare them to other areas. As the program expands down the river, as it plans to do, the students will get an idea as to how development and industrialization affect the quality of the water. The information collected by the students will serve as needed baseline data, since at present there is no cohesive body of information on the health of the headwaters. Thus, the Hudson Headwaters River Watch program will be able to identify and act on any problems that exist with the quality of the headwaters of the Hudson River. This summer the Hudson Headwaters program hopes to train adults who will continue to monitor the water during the summer months, so that the testing can go on year round. Other organizations involved with the Hudson Headwaters program are the Adirondack Teaching Center and the Soil and Water Conservation District, and it has received funding from the Adirondack Park Institute, a non–profit association that raises funds for the Interpretive Center.

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[1] Boquet River Association, May, 1991 Newsletter, Vol. 7, No. 2, p.5.

Hudson Headwaters is also presently involved in developing a sister program in Hungary, on a tributary to the Danube River. Last year the group got a grant from the Adirondack Park Institute to send a teacher from one of the schools to Hungary to look into the feasibility of starting a sister program there. Funding for the Hungarian aspect of the program will be supplied by the U.S. Information Agency. This money will pay for Hungarians to travel to the U.S. to be trained in water sampling and testing. Also, students involved in the "Hudson to the Danube" program will communicate with the sister program in Hungary by telecommunications, to compare and contrast the progress that each group is making. The Hudson to the Danube program will thus give the students involved an idea of the global aspect of protecting natural resources.

As one member of the Hudson Headwaters program said, such a project requires a lot of organization, which is best done by one entity, such as the Adirondack Interpretive Center. The program involves organizing funds, training people, and involving the community. In the long term the Hudson Headwaters organization would like to allocate funding for a full time employee, whose job would be the coordination of all the activities carried out by the project. Representatives from the Hudson Headwaters River Watch and from BRASS agreed that the program has been very rewarding, and worth all of the time put into organization. In addition to gathering and recording information about water quality which will form a much–needed bank of data, these river associations involve the community in protecting one of the many natural resources that play a large role in defining the quality of life and the quality of the environment in the Adirondack Park.

Three other River Watch programs which share many of the same goals and projects exist in Chittenden County, Vermont. For further information on River Watch Network, contact River Watch Network, 153 State Street, Montpelier, VT 05602 (802) 223–3840.

### *Recommendations:*

Although the quality of the waters in the Adirondack Park is generally high, problems do exist. Those problems – sedimentation, cultural eutrophication, algal blooms, milfoil, salt and storm runoff – are the result of development within the Park's watersheds. The effects of development on water quality need to be monitored with a comprehensive program in order to minimize the environmental impact of future development. It is evident that due to budgetary constraints, state agencies will not be able to provide all the services necessary to protect water quality throughout the Adirondack Park. Consequently, programs coordinating citizen involvement such as the lakes and rivers programs will play a vital role in this process. Any individual or group of interested citizens who would like to see their water quality improve or simply retain its quality should consider forming an organization such as the lake and river associations mentioned above. The associations described above should be contacted for advice on how to initiate and gather funding for such organizations. Further, individuals should recognize that the contribution of fecal coliform from a faulty septic system can and will degrade the water quality of a river or lake, and should be stopped.

The data collected by citizen organizations will provide necessary baseline data which needs to be integrated into a comprehensive program for monitoring water quality and development within the Park. It is imperative that the data collected by individuals and by the state be combined to show cumulative, long–term trends in water quality as development continues, so that the appropriate planning and regulatory measures be taken in the future. Such a program should serve as a guideline for planning to insure water quality throughout the Park. The maintenance of the Adirondack's water bodies is imperative if the Adirondack Park is to continue to provide the recreational centers and aquatic wildlife habitats that make the Park unique.

## VII. SOLID WASTE MANAGEMENT

### *Current Trends:*

In 1989, between residents, businesses, and institutions, approximately 411,960 tons of solid waste were generated and disposed of within the Blue Line of Adirondack Park. The hamlets within the Park are threatened by the environmental damages resulting from improper disposal of these wastes, such as groundwater pollution. In the near future, more and more landfills which do not meet the tough state requirements will be forced to close down, and new landfills will have to be sited.

After interviewing several people in the selected hamlets, the following trends are evident, which hopefully are representative of the general state of solid waste management within the Park. Currently, the majority of the hamlets within the Park send their solid waste to municipal landfills, either in their own hamlet or in a near-by hamlet or town. In fact, only 10% of these hamlets send their municipal trash to a county-wide landfill. However, with new State regulations requiring an expensive double liner system to avoid leachage, 70% of the landfills now operating will be shut down within the next three years. To account for this loss of space, plans are under way for several county-wide landfills. Many are concerned that if the wastes must be hauled to a county landfill, this will most likely result in higher collection and disposal rates, causing a rise in taxes. Another concern voiced by over 20% of the hamlets is that these rate increases could instigate more illegal dumping. In spite of this, the towns that have already switched to a regional facility have not indicated that this was a major problem.

The number of hamlets engaged in recycling is commendable. By September 1, 1992, under New York State mandate all counties will be required to recycle materials that are economically feasible to collect. However, many hamlets began recycling years ago, either on a voluntary or mandatory basis. The hamlets involved in recycling are helping to conserve natural resources; for example, to make one ton of paper, it takes 17 trees. Additionally, when individuals reuse products, fewer products need to be produced which saves energy and reduces are dependence of foreign countries for certain raw materials. Every time a Park resident recycles or reuses items this also saves landfill space which decreases the cost of disposal because landfills do not fill up as fast.[1] Recycling programs are especially important because the amount of total municipal solid waste generated within the Park is expected to climb to around 464,370 tons by 1997, a 13% increase in less than ten years.[1] Of the twenty hamlets where we have information about recycling, all but one have some type of recycling program underway. Many of these programs started as a reaction to the New York State mandate requiring counties to decrease the amount of solid waste needing disposal by 25% by September 1, 1992. A town's accessibility to markets for the recycled products has determined which materials are economically feasible to collect. In descending order, the majority of the hamlets collect the following materials– glass, aluminum, newspapers and plastics, and a select few collect used oil, glossy magazines, tires, batteries and used car parts.

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[1] "Why Should We Care?" *What About Waste?* Cornell Cooperation Extension and Essex County Department of Solid Waste Management.

Unlike some large–scale environmental problems like global warming, garbage is an integral part of our daily lives: individuals make choices every day which directly determine the amount of waste they produce, and how it will be disposed. Looking at successful models of solid waste management can help individuals make proper decisions.

## *Case Studies:*

### *A. A Successful Recycling Program for Counties*

Warren County has had a successful recycling for two years. After the county required in April 1991 that selected materials be recycled, towns within the county were in turn required to start mandating these restrictions by June 1991. The county started by collecting four different types of materials– steel cans, clear glass, newspapers, and clear high density polyethylene (HDPE) plastics, like milk jugs. In addition to these materials, they are now also accepting colored HDPE plastics, like detergent bottles, and #1 PET plastics, like plastic soda bottles and vegetable oil bottles. More recently, the county expanded their collection again to include corrugated cardboard, green and brown glass and aluminum cans. At this point, there are eleven drop off points, located throughout the county complete with attendants who make certain all recyclables are in acceptable condition.

The collection of the recyclables is for the most part the responsibility of the individual town or hamlet. Three towns within Warren county have curb-side collection. In Lake George and Lake Lucerne, the haulers are using trucks which were initially provided by and later bought from the county. In Johnsburg, Queensburg and Glenn Falls, the town has contacted out with private haulers. In the more rural towns, it is most economically efficient to have individuals themselves bring the recyclables to drop-off points. To provide an incentive to recycle, there are penalties if someone is caught not recycling. After one warning, there are various fines depending on the town for not recycling, such as $100 for first offenders, $250, for second time offenders, etc..

Fifty percent of the funding for the Warren county recycling program came from a grant from DEC, which went towards the costs of setting up the program and constructing a new Materials Recovery Facility (MRF) which will officially open in the beginning of 1992. Right now, the MRF sorts newspapers and corrugated cardboard into half ton bails to increase the market profitability of these goods. Since materials can be first bailed within the county, they can then be sold for a higher price. Also, the facility hopes to shortly begin crushing steel cans and plastics.

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[1] *Draft New York State Solid Waste Management Plan, 1990/1991 Update*. New York State Department of Environmental Conservation.

In Warren County it is cheaper to recycle than to burn the waste in incinerators, which costs $90 per ton. As more residents have become aware of this, most have turned to recycling as a free means of disposal. Burning garbage in incinerators also produces ash which is highly toxic and costly to safely dispose. Another reason why expansion is so successful is that the county has not had any problems finding markets for all the various materials. The State grant also helps accelerate the process by covering a portion of the start up costs and operating fees.

According to officials, one potential problem is that private haulers could monopolize on the more profitable materials and dump unprofitable ones on the town. "Flow-control" legislation limiting who collects what materials and how much of these materials should be passed in this area. According to some officials, another problem is that the recently constructed incinerator is not getting the volume of trash it needs to stay in business. However, this is not necessarily a problem for several reasons. With greater centralization, this "demand" for garbage is being met by neighboring counties who need more disposal space as their own landfill begin to close. Additionally, on the positive side the incinerators lack of garbage supply is a direct result of the reduction in waste volumes resulting from an increase in recycling. The more recycling is practiced the less and less dependent communities become on inefficient disposal methods, like burning the garbage in incinerators. Finally, as more and more data is gathered about the potential health and environmental costs of incinerators, they may be outlawed in the future.

Overall, the county has done an excellent job in continually expanding their program, as markets expand into the Park vicinity. In addition, the Warren county's Materials Recovery Facility increases profitability and provides jobs within the county.

For more information, contact: Bob Linck, (518) 761–6556.

### *B. Enforcement of Proper Waste Disposal Methods*

Saratoga County Sheriffs Department has employed full–time a deputy to enforce their recycling laws. Equipped with a pair of boots, a gun, and a video camera, the deputy spends his days travelling around the county inspecting solid waste landfills, to make sure that residents and haulers are not disposing of recyclable materials there. Over the first weekend "on duty" back in June 1990, over fifty illegal dumpers were ticketed by the deputy. To help residents abide by the laws, the county has made recycling easier by setting up 5 regional processing centers for recyclable materials. These facilities are run by 8 attendants, and materials are collected with 6 trucks, 5 tractor trailers, and 45 containers all provided for the towns by the county.

Since the enforcement has started, there has been a substantial increase in volume of recyclable goods of at least 30%. Since the program's first year of operation when 1,000 tons of recyclable materials were collected, the amount has significantly increased. For example, by the end of this year, the county expects to the total tonnage of collected goods for 1991 to reach 16,000. On average, the county collects 700 tons of paper, 200 tons of glass, 500 tons of metal and 50 tons of plastic per month. The county has a "markets-first" approach to determining which items to collect, meaning if there is a market for a particular good they will take it.

Since the residents of Saratoga County had had mandatory recycling for two years when tight enforcements started, these were more readily accepted. This gave residents time to adjust their lifestyles before the restrictions were truly mandated. Starting with newspapers and white metals in 1988, the county has made it illegal for specified recyclable goods to be accepted in the landfills. Since their law specifically states that these materials are forbidden in the landfill, it is easier to enforce than a law that requires each bag to be checked by the county at the time of pickup. As a result, it is the responsibility of the hauler (who is also fined if the regular waste contains recyclable materials) to check up on his or her customers, and the sheriff's job to check the site. The county's proximity to Albany has facilitated the task of finding markets for the recyclables like glossy magazines. Additionally, there is a paper mill within the county that uses all of the collected newspapers, a material for which it is often difficult to find a market. Another key to Saratoga's success is education. The county educates the residents as to the importance of recycling to save their communities. To assist in this, a full–time recycling coordinator, Joe Miranda, presents information to schools in the county and the general public. To continue this, the county hopes to inform its residents about the importance of a regional approach to solid waste management. The more residents are aware of the "cost-avoidance" of some disposal technologies over others, the more they will become involved. For more information, contact: Joe Miranda, (518) 885–0087, ext. 124.

### *C. Education on Solid Waste*

Essex County is fortunate to have a the only individual within the Park who was strictly hired by DEC to educate its residents about the environment. Geoff May works through the Cornell Cooperative Extensive, which is the educational arm of Cornell University. Through a State land grant which is dedicated to getting research knowledge out to the public and additional state and county funding, Essex County has been successful in really getting recycling education off the ground. Mr. May prepares various fact sheets which are distributed to the general public at town meetings, such as "How to Recycle", "Disposal of Household Hazardous Waste" and "Reduce It! Reuse It!". This information is based on materials from the Cornell Waste Management Institute.

Teacher workshops are held in several school districts to make this information even more widely available. Mr. May goes into schools and teaches classes about the importance of recycling, such as the seventh grade in Willsboro. In addition, he is presently putting together a school curriculum which includes 15 activities and background information to familiarize children with solid waste issues. Mr. May has also organized Conservation Field Days where he has had a chance to talk to over 400 students in small groups throughout the day. The Cornell Cooperative Extension (CCE) is also involved with the nearby counties of Franklin and Clinton in some of these activities. One town planner in Willsboro attributed much of the success of their recycling program to Mr. May's dedication to educating the students, who in turn went home and told their parents about the importance of recycling.

At a time when there are so many changes going on in solid waste management, it is especially important to expand this kind of education in the Park, and residents are willing to listen when costs like polluted water and higher taxes are unavoidable. The area where education has had the greatest success in when the promoted new methods actually produce real, direct benefits for residents. In many of these situations before education, information about these benefits is often unknown. For instance, if residents do not know that there are economic and environmental benefits to charging per bag for garbage collection, there will inevitably be resistance if such programs begin. Paying up front for disposal requires a new way of thinking about solid waste. Mr. May explains to communities the benefits of a per bag charge system which has recently been proposed in Essex County. Under such a system, residents would buy stickers from the town, and only bags which have an official sticker would be collected. Since they pay directly per bag and not indirectly through property taxes, this system is naturally set up an incentive for households to minimize the amount of waste and recycle more items.

As landfill space decreases and rates rise, it will become increasingly important to keep costs down in this area, and new programs like the sticker system can help with this. This method along with Mr. May's information about “Environmental Shopping” spells out shoppers the importance in buying products with less packaging, choosing products available in bulk, and avoiding one-time use, disposable items. To provide another incentive for communities, Mr. May has included in the November 1991 CCE publication, *Town and Country*, a list of exactly how much each town in recycling, so the towns can see their improvements from month to month. There has also been publicity regarding collection days, and drop off times and locations, available to the public. For more information, contact: Geoff May, (518) 962–8291.

***Recommendations:***

1. Expand education about all areas of solid waste management. It is essential for residents to be aware of how their waste is being disposed. If the real social costs of waste disposal are known, there will be a greater incentive to reduce wastes and recycling more.

2. Improve enforcement of proper disposal methods. Municipalities should hire individuals whose sole responsibility is to check for illegal dumpers and recyclable materials in the regular waste stream.

3. Develop an efficient and convenient recycling program. Various towns and hamlets within each county should work together in transporting recyclable materials to the available markets. Especially as more county landfills open, counties should attempt to centralize recycling. If recycling is already going on, coordinators should evaluate the current levels of recycling to determine which residents are recycling, and how to expand their program. Additionally, to create an economic incentive to recycle, the charge for regular garbage collection should be per bag.

4. Start collecting household hazardous wastes. Most programs for collecting household hazardous wastes are only in the preliminary stages. As a result, no case studies within the Park were discovered to exemplify a successful model to follow. However, starting a program is extremely important so these wastes are not treated like any other solid waste. Common every day products like plastics, detergents and aerosols can contaminate the water and/or the ground via of landfills, drains, or sewage sludge. According to INFORM, a New York organization which focuses on research and education, planners need to take the following steps to develop an effective household hazardous waste program.

a. Development of a list of household hazardous materials to be separated for collection.
b. Establishment of collection procedures and schedules.
c. Determination as to whether currently used equipment is sufficient or new or additional equipment is needed.
d. Identification of where collected materials will be taken and how they will be disposed of, stored, or recycled.
e. Exploration of the waste management firms who will collect and/or dispose of collected materials.
f. Planning for public education programs and publicity regarding collection days.
g. Definition of funding needs and sources of support: Local government support, and county, region, and state support.

## VIII. PUBLIC LANDS

### *Current Trends:*

The delicate balance between public and private land and their respective uses within the Adirondack Park is the essential characteristic that maintains the atmosphere which provides both Park residents and visitors with the "Adirondack Experience." The phenomenon of the "Experience" is what keeps the park alive. Over 50% of the people interviewed mentioned the preservation of the character of the Park as a necessary main component of any type of sustainable development plan for the future. The spirit of its residents and the features which consistently draw visitors are both products of the natural state of the environment of the Park and its lengthy history. As the turn of the century approaches, the possibility of over–development and subsequent disintegration of the character of the Park threatens the ideological foundations of the Park itself. It therefore becomes essential to protect the integrity of the Park by ensuring that these features which perpetuate the "Adirondack Experience" will be present in sufficient variety and scope for generations to come.

The public land within the Blue Line is a collection of parcels that are specifically designated for management with respect to their biological diversity, environmental quality, and recreational opportunities for the public. It is an outstanding feature of the Park, housing the largest, most protected wild tracts of land in the eastern United States. The public land includes many of the significant Park waterways, as well as many of the main transportation arteries. This land provides residents with the types of open space and rural characteristics that keep them within the Blue Line. It also includes the recreational haven that Park visitors often seek, on land or water, in winter or summer. This environmentally based tourism is such a large part of the economy that anything that degrades the environment or makes recreation less desirable is guaranteed to affect all aspects of life in the Park. Thus, the preservation of the wild tracts of public land left in the Park is not only environmentally desirable, but essential to the economy as well. Yet the fact remains that many of the Park residents interviewed felt that certain tracts of public land are currently being mis–managed or over–used, and the continuation of such activities will be detrimental to the character of the Park.

The state–owned land within both the Adirondack Park and the Catskills is protected under Article XIV of the New York State Constitution, and is referred to as the Forest Preserve. There are currently 2,440,817 acres of Forest Preserve within the Blue Line. Article XIV, Section 1 contains what is known as the "forever wild" clause which states: "The lands of the State, now owned or hereafter acquired, constituting the Forest Preserve as now fixed by law, shall be forever kept as wild forest lands. They shall not be leased, sold or exchanged, or be taken by any corporation, public or private, nor shall the timber thereon be sold, removed or destroyed."[1] The Department of Environmental Conservation (DEC) was entrusted with the stewardship of the Forest Preserve within the scope of Article XIV and the State Land Master Plan (SLMP) which was mandated in Section 807 of the Adirondack Park Agency (APA) Act.

Section 807 asks the APA to classify state lands "according to their characteristics and capacity to withstand use and provide general guidelines and criteria for the management and use of lands within such classifications."[2] The SLMP classifies the state land into 9 categories as follows: Wilderness, Primitive, Wild Forest, Intensive Use, Wild, Scenic and Recreational Rivers, Travel Corridors, Canoe, Historic and State Administrative as per the 1979 amendments. The two main categories are Wilderness and Wild Forest, with Wilderness comprising 43% of state land, and Wild Forest making up 51%. The main objective of the management guidelines for Wilderness is the preservation of the natural state of the flora and fauna without apparent human influence. The main objectives for the regulation of Wild Forest are to provide recreational opportunities for the general public without affecting the natural setting. The regulations for Wilderness are stricter than those for Wild Forest, and back–country recreation,such as mechanized travel,which has more potential to affect the environment, is limited to the Wild Forest. The maintenance of the delicate balance between Wilderness and Wild Forest is one of the avenues by which the environmental integrity of fragile areas can be protected, while recreational possibilities can be expanded into compatable use areas where the environment allows for it.

The SLMP also asks the DEC to "develop, in consultation with the [APA], individual management plans for units of land classified in the master plan and such management plans shall conform to the master plan."[3] Unfortunately, the implementation of the guidelines has been extremely slow; the DEC reports that only 16 out of 120 requested unit management plans have been completed thus far. The SLMP was designed to create guidelines with enough detail to provide a framework for the drafting of the unit management plans (UMP's). The DEC is to provide the staff to address the environmental and administrative issues specific to the area in question. The local issues are left unaddressed until their respective UMP's are completed. Without appropriate planning for the future, significant environmental deterioration will undoubtedly take place in many of these areas.

The guidelines set forth in the SLMP are reasonable, and have the potential to provide effective protection for the ecosystems present. The problem lies in the inability of the appropriate agencies to actualize the legislation. The management of the Forest Preserve has been defunct due to the inability of the APA and the DEC to work together to implement the SLMP. The most frequent explanation and commonly assumed underlying cause of neglect is the under–staffing or inappropriate management of human resources on the part of both the APA and the DEC. The DEC states that there are currently only 3 Regional Division of Lands and Forest Staff assigned to the drafting of UMPs in Region 5 and only 2 in Region 6. Division of Fish and Wildlife, Operations and other staff work on UMP's on a part time basis. The issues most pertinent to the preservation of the natural environment, and therefore the character and economy of the Adirondack Park will suffer if the implementation of the SLMP guidelines continues to be neglected.

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[1] *New York State Constitution,* Article XIV, Section 1.

[2] Adirondack Park Agency, *Adirondack Park State Land Master Plan,* 1972.

[3] Ibid.

The problem lies much deeper than this, though. It begins with the education of the general public. The current education curriculums in this country lack the ability to draw attention to environmental issues and sensitize people to their natural environment. The result is a livelihood which underscores the value of the natural environment. Society's emphasis of economy and concurrent disregard for the environment is responsible for the prioritizing which leaves the environmental regulatory agencies understaffed. There currently exists a dire need for effective environmental education on a national level. The same need exists within the Blue Line. While the Park residents and theunique natural features of the land comprise the character of the Park that is essential to its vitality, there is little public education on the subject of the Forest Preserve and the controversial issues which affect its legislation and, consequently, its future. There is also no public information on the policies and regulations of either the SLMP or the UMP's. Of the people interviewed, only 14% were aware of any environmental education programs taking place in the public schools within the Park. It is essential that Park residents learn more about the natural environment, and the most effective ways to protect it, in order to preserve this distinct character of the Adirondacks for future generations to enjoy, and for present residents to prosper from.

***Case Studies:***

The Visitor Information Centers (VIC's) have been an effective first step towards a comprehensive environmental education program not only for Park visitors, but for New York state citizens as well. There are currently 2 VIC's in the Park: the first was opened at Paul Smiths in May 1989, and the second opened at Newcomb in October 1990. The VIC at Paul Smith's hosted approximately 80,000 visitors per year in their first two years of operation, according to Marketing Director Anne Melious. VIC's provide visitors with information on the Adirondack history and environment as well as the regulations for the different designated recreational use areas of the Forest Preserve. Melious states that they "get people who normally only look at the scenery from behind the windshield out of their cars and on non–threatening surfaced trails which are lined with easy to read interpretive signs." The purpose is to instill an appreciation for the natural environment in the visitors, and to provide a resource for environmental information for Park residents. The VIC's also run naturalist-led walks and programs for children of ages 4–10 on Saturdays, and are going to be expanding their work with special populations in the future. In addition, they are going to begin offering week-long adventure programs as well.

Previous to the opening of the first VIC at Paul Smiths, there was no organized educational program for Park visitors. There were only limited informational signs at roadside pullouts and bulletin boards alerting back–country users of selected regulations at major trail–heads . It is imperative that visitors have access to informational programs on the local history and special features of the Adirondack

Park so that they fully understand and appreciate the unique situation of the Park and its foundations. It is also important that recreants and back–country users have access to the public land use regulations set forth in the SLMP, and to low impact recreation practices that will keep the effects of human use in the Forest Preserve as minimal as possible. Presently the only efforts in this direction are the Assistant Ranger program, which has approximately 20 people working in the back–country alerting users of minimal impact techniques that they may be neglecting, and the Summit Stewardship Program, which educates summit hikers of the fragile alpine vegetation on Mts. Marcy and Algonquin.

The VIC's are also involved in developing and writing environmental education curriculums for primary and middle schools throughout the state. There are school visitations on the part of VIC staff, and teacher training workshops put on to assist teachers in incorporating environmental education into their classes state–wide. Melious identifies their main objective as "starting with kids as young as we can get them, and hopefully instilling some sort of environmental ethic." It is imperative that the people who are affected by the Park, i.e. residents, visitors and those who are appeased by the presence of the Park, whether they have been there or not, have access to accurate and comprehensive Park information, so that they may be able to understand the nature of the Adirondack environment, be familiar with current regulations and become involved in securing the future of the Park environment . The VIC's are participating in many programs which do just that. According to Melious, like many others, this program remains largely understaffed.

***Recommendations:***

The VIC program and others which are working on environmental education for Park residents and visitors need more financial support from the government so that they too may be adequately staffed and continue to expand their programs. There should be more state funds allocated towards these ends, rather than channeled disproportionately towards issues concerning economic development. When there is adequate access to information on environmental issues and Park history, the public will be better prepared to deal with the questions of the Park's future. They will have a general understanding of environmentally-sound actions, and will have a better idea of all the issues involved in the management of the public land, and the maintenance of the crucial balance between public and private land within the Blue Line. The people of New York State have much invested in the Adirondack Park, and should be incorporated into the decision processes therein. One way that the public can become more involved with the management of the Forest Preserve is if the DEC solicits local opinions for the UMP's. One possible scenario would involve Town Supervisors and Planning Committee Chairpersons and other local officials who show interest in the drafting process. This would alleviate some of the pressure on the DEC to provide multiple staff persons to different units throughout the Park, and will speed up the initiation and completion of the UMP's, which remain in excess of 100. Interested citizens could also attend unit management planning meetings and become an integral part of the process by which the public land in their community is managed and protected. Such public meetings would be avenues by which individual concerns of public access and use could be voiced and effectively considered in the deliberations.

Eventually, the creation of an Adirondack Park Service could provide the solution to both the problems of Forest Preserve management shortcomings and the expansion of the environmental education programs of the Park. An Adirondack Park Service could also be the appropriate type of agency to deal with the looming issue of over–crowding in and over–use of popular parts of the Forest Preserve. Proper government support and funding for such a program would achieve the following results: create jobs within the Blue Line, allay some of the pressure from the APA and DEC so that they may channel more energy to their chartered pursuits, unify the regulation and administration of public lands, provide public education both in the community and at selected popular entrance points to the Park and recreation areas within the Forest Preserve and further involve the public in the future of the Park. Once the current regulations are adequately implemented and regulated, and the public has had reasonable access to educational information, the state can then consult the public and solicit opinions about additions to the Forest Preserve, and the various issues that surround such acquisitions as well as the proposed expansion of the Blue Line.

## IX. AIR QUALITY

### *Current Trends:*

The air quality within the Adirondack Park is an environmental concern that, at first thought, *seems* to be beyond the control of Park and state governments because a great deal of the air pollution that affects the Park comes from areas outside the Park and from outside the state. However, there is much that people within the Park can do to improve the quality of the air they breathe. By far, the biggest air pollution problem in the Park is acid rain. Toxins have been found in Lake Placid in concentrations similar to those found in densely populated urban regions elsewhere in New York, indicating that the air in the Park is not as clean as is generally thought. Due to acid rain, approximately 200 lakes in the Park have been critically acidified to the point that they can no longer support fish life. There are 260 more lakes that are in danger of reaching this point.[1] Governor Cuomo, the Attorney General of New York, and private environmental organizations have endorsed acid rain legislation that will reduce sulfur dioxide emissions nationwide.

New York has shown concern for its air quality through the implementation of the State Acid Deposition Control Program. This legislation was designed to reduce sulfur dioxide emissions by 1) designating areas sensitive to acid deposition, 2) establishing an environmental threshold for wet sulfate deposition at each sensitive area, 3) formulating control targets for fuel sulfur limitation, and 4) developing a sulfur dioxide emissions control program which will result in targeted reductions in sulfur gases and depositions at sensitive areas. The State Acid Deposition Control Program designated the Adirondack Park as one of three sensitive areas, making the program a key player in determining the future of air quality in the Park. It is clear that until emissions are controlled throughout the country, New York will continue to have a major acid rain problem. However, it is important to remember that New York contributes the second largest amount of sulfate depositions recorded at both Park stations, the first largest coming from Ontario.[2] In addition to causing acid rain, health problems, and global warming, air pollution reduces visibility and thus becomes a serious aesthetic problem. It is surprising that so far, no efforts have been made to monitor visibility within the Park since clean, clear air is one of the Park's most valuable assets.

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[1] The Adirondack Park in the Twenty-First Century, Technical Reports, vol.1, p.705.

[2] Ibid, p. 711.

It is clear that the state should push for stricter national legislation and international action to reduce emissions which harm air quality and cause problems such as acid rain and global warming. When the notion of Prevention of Significant Deterioration of Air Quality was established as an amendment to the Clean Air Act in 1977, all National Parks were assigned Class I status (only minor air quality deterioration permitted) while the Adirondack Park was assigned Class II status (moderate well–controlled deterioration accepted). Efforts in 1983 and 1984 to achieve Class I status were unsuccessful.[3] This is one area where the Park residents could have a major impact. Section 164 of the 1977 Clean Air Act gives jurisdiction to the state for upgrading a Class II area to Class I status. By working through the political process they could have the Park assigned Class I status and thus make air pollution standards for the Park stricter.

Not all threats to air quality come from outside the Blue Line. Studies done in western states have shown that fine carbon reduces visibility. Wood stoves, which are common in the Adirondack Park, send fine carbon into the air. Regulation of their use could help increase visibility and would be a way in which Park residents could become active in improving their air quality. A more serious threat arose when plans were initiated for a medical waste incinerator in Ellenburg Center which would deposit a fine white ash on farmland in the Park. To date, activism from residents in the Park has prevented its construction. Another way in which residents can directly affect air quality is by regulating their car emissions. Car emissions are monitored only on a voluntary basis outside of New York City. If New York required compliance with auto emissions standards as California does, problems of air quality in the Park would be alleviated.

## X. SPECIAL ECOSYSTEMS

### *Current Trends:*

Special ecosystems within the Adirondack Park are critical environmental areas such as wetlands, certain high elevations, and areas near certain lakes, rivers, highways, and state owned lands. This section will focus on wetlands and shorelines. Shorelines of the Park will be defined as areas along streams, ponds, rivers, and lakes. Because of the complexity and diversity of wetlands one single definition is often not all-inclusive. The Fish and Wildlife Service defines wetlands in the following way, "Wetlands are transitional lands between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water."[1]

Fourteen percent of the land surface in the Adirondacks is wetland. These areas benefit both people and the environment of the Adirondacks in several important ways. First, they act as a filtration system for pollution and high sediment load, and in doing so, provide healthy breeding grounds and natural habitats. These habitats, like the 3,500 acre wetland that lies between Tupper Lake and Long Lake in the central Adirondacks, are among the most productive ecosystems in the world. This wetland provides a home for five species of rare birds: the spruce grouse, the gray jay, the Lincoln's sparrow, the boreal chickadee, and the white winged cross bill, and at least one unique flower: the white fringed orchid. In addition, this same wilderness area contains the Massawepie Mire. More that 500 acres of thick matt heath and sphagnum moss cover the ground throughout this bog.[1]

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[3] Ibid, p. 718.

[1] Tiner, Ralph. "Wetlands of the United States: Current Status and Recent Trends," U.S. Department of the Interior Fish and Wildlife Service, (March, 1984).

Although often overlooked, the wetlands of the Adirondack Park have a significant economic value to Adirondackers. For example, the filtration process mentioned above also helps to purify groundwater discharge and the water supply as well. And without clean drinking water, many localities would have to pay for water purification. Other economic benefits include flood control and erosion control. Wetlands help generate timber, like the spruce in the Adirondacks, and support fishing, hunting, and other recreation, as well as providing a place for education and scientific research.[2] Clearly the benefits the public receives from wetlands are extensive. Not only are areas such as Spring Pond Bog globally significant resources, but the indirect economic values are substantial.

In 1989, the Adirondack Council estimated a four-fold increase in the number of large scale subdivisions and development projects in the Park.[3] It is thought that developers are hoping to cash in on their property before tougher regulations are passed in the next decade. If shorelines are overdeveloped or wetlands are destroyed this will greatly affect many aspects of life in the Park. There are some wetlands that are particularly vulnerable to degradation and some that are “more valuable than others.” Wetlands that are located near the headwaters of the major rivers in the Adirondack Park are considered especially important.[4] Much of the shoreline is in danger of being overdeveloped and over-used for recreational purposes. Shorelines and wetlands around Butler Lake in Herkimer County, Hamlin Bay on Tupper Lake, Loon Lake, and Lake George, and along the Raquette River have all been threatened by development plans in the last five years. These are only a few examples from an extensive list of recent development in the Park. It is essential that the benefits of these special ecosystems are realized and protected now and in the future, not only for their indirect monetary value, but also for their important value as a natural resource.

Throughout the Park special ecosystems are being protected in several ways. The process begins with the Natural Heritage Program: a branch of the Nature Conservancy that identifies critical ecosystems within the Park. They assign a “biodiversity rank” to each area based on an internationally used system which determines the occurrence of the species or community, how it is threatened, and how good an example of that type of species or community it is. Using this ranking system they compile a priority list of areas for protection and share this information with the Adirondack Nature Conservancy among others.[5] The Adirondack Nature Conservancy, joined with the Adirondack Land Trust since 1988, works to balance economic and developmental concerns with conservation efforts. There are several examples of the Adirondack Nature Conservancy/Adirondack Land Trust (ANC/ALT) protecting critical ecosystems from harmful degradation.

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[1] Barth, Janis. "Scouts Take Oath to Protect Bog Area," *Syracuse Post Standard* (1989).

[2] "Citizen's Guide to Adirondack Wetlands," State of New York, APA.

[3] Barth, Janis. "Agency to Probe Land Use in Park," *Syracuse Post Standard* (December 6, 1989).

[4] Ibid.

[5] Rushkee, Carrol. Phone Interview, (December, 1991).

In 1990 the ANC/ALT embarked on a project called the “Lake George Shoreline Project” which would include the protection of over three miles of undeveloped shoreline and 1100 acres. The Project is a response to the increase of development that has occurred along the popular Lake George. While they recognize that the surge of construction of homes and tourist facilities have boosted the local economy, the ANC/ALT also realizes the necessity to maintain the character of one of the most scenic natural places in this country. Their hope is that preserving this three mile stretch will not only help limit the impact on the water quality of the entire lake, but also maintain its scenic open space character in order to continue to attract visitors.[1]

Another example of wetland protection is of the handshake agreement between the ANC/ALT and the Otetiana Boy Scouts to protect the previously mentioned Massawepie Mire. The Scouts own the enormous wetlands, and they have agreed to protect and preserve this land. In return, the Conservancy educates hundreds of Boy Scouts about bog ecology. Also, the Conservancy manages and continues to do research on the area. The Nature Conservancy balances the need for permanent protection of important resources and conservation/management strategies for areas that can afford more public use. Currently the ANC/ALT has helped protect some of the most important wetlands and shorelines in the Adirondack Park. In addition, they often help people devise individual management plans for easements.[2]

Currently it is necessary to obtain a permit from the APA to develop shoreline property and to develop areas on or adjacent to wetlands. There are restrictions on cutting on shorelines and there is a limited amount of development allowed on shorelines.[3] There is a classification system for wetlands rating them from 1 to 4 that determines how these areas will be effected. Wetlands classified as a 1 will have maximum protection and preservation while a 4 will allow more development to take place.[4] This system is necessary because there needs to be a uniform law and understanding of how these areas will be affected throughout the localities of the Adirondack Park. The Federal government has acknowledged the importance of wetlands as a public resource and has outlined their protection, although the permitting process is left to local governments. In the case of the Adirondack Park, the APA is in charge of issuing permits for development of these ecologically sensitive areas.

It is important that the permitting process is expedient, fair, and consistent, yet many Adirondackers feel that the APA is more interested in preservation than they are in an efficient application process. However, many others would argue that the APA and the DEC are not doing enough to protect the wetlands of the Park. The Agency is understaffed and subject to pressure from interested business groups and politicians. As a result, they cannot adequately regulate the development of special ecosystems in each instance.

Together, the two impediments of inefficiency and sharply competing interests seem to define the permitting process. And when push comes to shove, the APA generally has more leverage than a single applicant. Therefore, applicants are often left feeling frustrated, having spent time and money to discover that they don't have the right to develop their own private property (see case study B: Hamlin Bay at Tupper Lake). However, it does not have to be one way or the other; unrestricted development or pristine wilderness. There are examples in which the APA and developers have reached what appear to be acceptable compromises (see case study A: The Butler Lake Subdiviion). These compromises are based on the idea that development can occurr, but not at the expense of critical ecosystems in the Adirondack Park.

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[1] "Lake George Shoreline Finds New Hope," *The Flicker*, Adirondack Nature Conservancy/ Adirondack Land Trust, (Autumn 1991), 8.

[2] Folwell, Elizabeth, "The Green Keepers," *Adirondack Life*, Vol. XXI, No. 7 (November/December 1991), 48–54

[3] "A Citizen's Guide to Adirondack Park Agency Land Use Regulations," State of New York, APA.

[4] "Citizen's Guide to Adirondack Wetlands," State of New York, APA.

The APA is not the only regulatory body seeking to balance the need for development and the need for healthy critical ecosystems. The Fish and Wildlife Service, for example, offers several suggestions regarding the management of wetlands. They argue that people should be educated on the value of wetlands, that wetlands should be maintained as open space, and that their uses (such as timber harvesting, hunting, waterfowl production, etc...)should be compatible [1] The APA and local communities need to make efforts to educate people of the immense importance of these ecosystems so that they will be protected. They are not only invaluable in maintaining the open space character of the Park, they also have economic values that are not easily measurable, but that are substantial.

## *Case Studies:*

### *A. Butler Lake Subdivision*

The Butler Lake subdivision was first proposed in January of 1987 and was originally known as the "Pine Lakes" subdivision. The area exists in Herkimer County in the town of Ohio and the subdivision proposed was 508 acres. The Butler Lake subdivision contains a number of resources including three lakes, a significant portion of wetlands, and deer wintering yards. Also, Butler Lake itself is a deep, cold lake which holds lake trout. The greatest concerns about developing the area were the protection of more that 60 acres of wetlands and the limitation of shoreline development. Another central issue was that the soil in the area is mostly comprised of sand and gravel which is susceptible to high rates of percolation. With houses proposed in the area an enormous increase in sewage would lead to cultural eutrophication of the lake which in turn would not only adversely affect the species within the lake, but also the property value of the shoreline. The impact on wetlands and shoreline was of central importance in the Agency's decisions regarding the acceptance of the submitted proposal.

This case study can be used as a guide to expedite the permitting process for future developers. The final proposal is helpful in recognizing the type of project that the APA will accept. This will hopefully provide a model so that precious time and energy are not wasted in the future. The case history of the permitting process is significant in that the project, which was wholly unacceptable at first, evolved into a development plan that would not exceed the carrying capacity of site.

As mentioned the project was originally known as Pine Lake subdivision and included a 95 unit sprawl development plan that covered every acre of the present Butler Lake proposal. In this plan a road was designed to cut through the existing wetlands. With knowledge that the APA would reject such a plan, for there were significant concerns that the carrying capacity of the land could not sustain a 95 unit subdivision, the original developers sold the property. The new owners, Butler Lake Associates from Old Forge, reduced the number of units to 65. The APA argued that the numbers were still too high and that the issue was not simply the number of units,but of the destruction of resources.

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[1] Tiner, Ralph. "Wetlands of the United States: Current Status and Recent Trends," U.S. Department of the Interior Fish and Wildlife Service, (March, 1984).

Finally the first stage of the official permit proposals began when the Butler Lake Associates submitted to the APA a plan that reduced the subdivision units to 18. This plan resulted from public hearings on the project. Although at first the APA staff were shocked by the substantial drop in numbers, it soon became evident that again the issue was not one of numbers but rather where the units would exist and how resources would be effected. In this proposal the lots were larger and there were extensive driveways, roads, and a trail system that would impact the environment significantly. Approximately 85 to 90% of shoreline would be occupied. Of the 508 acres, only 125 acres were designated as open space. The APA recognized that the problems were that the area would still be fragmented and the proposal did not allow for clustering according to the location of resources. The APA denied this proposal for these reasons and forced the Butler Lake Associates to propose a project that took into account the resources in the area.

After important changes were made the final proposal was given to the APA for review. In this proposal 313 acres were left for open space and now 82% of common shoreline would be left undeveloped. This was a radical departure from the previous 85% of shoreline proposed for development. Another significant change was that septic systems were moved back from 350 to 400 feet from the shoreline. This would mean that the septic system would now drain into the wetlands which can filter the pollutants causing both human diseases and forced eutrophication. The APA approved this proposal because the development process was attuned to the existence of important natural resources in the area. The maintenance of the wetlands will play an important role in filtering the water which otherwise could have polluted the lake. The protection of shorelines maintains the open space character of the area which will not only protect certain habitats but will also increase the value of the property as it will not be subject to development sprawl.

The final proposal was accepted by the Agency in 1991 in good faith that it will not only be economically successful for the developers but that it will also protect essential ecosystems. Certain provisions accompanied the acceptance of the proposal. One of these placed a limit on the amount of area that could be cleared on the lot. Approximately 90% of the lots remain undisturbed and the houses, driveways and septic systems were all moved back from the shoreline so that they limit the degradation of the shoreline and maintain the open space character. Reducing the number of lots from 95 to 18 would substantially affect the total profit. The long-term benefits are significant: protection of the open space quality, which may increase the property value of the units in the future, an increase in overall water quality, and the protection of the wetlands which will act as a filtration system and eliminate the costs of the installment of an expensive water filter.

While the Butler Lake subdivision provides a good example of how developers worked with the APA to protect special ecosystems such as wetlands and shorelines, some still object to the process and ultimate result. One potential objection is that the process takes too long. In this case the initial proposal was drafted in 1987 and the final proposal was not passed until the end of 1991.

While the efficiency of the APA is certainly something to question, one thing to remember is that development projects must be in earnest if they are to be accepted by the APA. There needs to be a genuine attempt to develop in harmony with the natural resources of the area. Clearly a development that proposes 95 units in a region whose ability to support that impact is highly in question, one that recommends the construction of a road through federally protected wetlands, and one that proposes the development of the majority of shoreline in the area, does not even attempt to maintain the environmental quality of the area. There are projects that are proposed that are in and out of the APA in a relatively short time because they are in accord with the natural resources. Developers can learn from the Butler Lake project how to avoid the first two expensive and long phases of this project.

Others objected to the APA's procedure by charging that the Agency rejected the Butler Lake subdivision without fair consideration of the evidence. They claimed that the APA's emphasis on the fact that installed septic systems would pollute the lake were not based on facts. They offered that the boys camp, which had existed there for years, had never negatively affected the lake to the point of accelerated eutrophication and the growth of algal bloom. This accusation is unfounded because the APA conducted extensive surveys of the area and recognized the potential impacts of the septic systems. The boys camp is a poor example because it only operated for 8 weeks out of the year, whereas the new developments would substantially influence the flow of nitrates and phosphates that come from sewage into the lake 365 days a year.

Another objection to the handling of the Butler Lake proposal was that by forcing the development to limit the number of units to 18 it may make the project non–profitable. After approval of the project, the APA's opinion is that enough money will be made from the selling of the valuable lake front lots to pay for the project and the rest of the lots sold will all be profit. Speculation suggests that the project will be economically successful.

A final objection that some may have regarding the project is that the people who review the proposals have an environmental bias and restrict the rights of private property owners. One must realize that the Federal government mandates that wetlands be protected. Also shorelines have been recognized as being essential ecosystems that maintain the open space character that is essential to Adirondack Park. It is the burden of the applicant to prove that developing on special ecosystems is the only possible alternative. For these reasons a certain protection of these areas is essential and will not and cannot be compromised by the Agency. What is necessary is that people understand these laws and values and make every effort to develop in concert with the resources that exist in the area.[1]

### *B. Hamlin Bay at Tupper Lake*

The case of Hamlin Bay at Tupper Lake is one which proposed approximately 22 lots, 5 of which were highly valuable lake front property. In this case around one and a half miles of privately owned shoreline was being considered for subdivisions. The area is a unique environmental area and the proposed developments would have degraded the steep slopes that surround the lake. After seven days of public hearings the developers realized that the APA would not pass their proposal and they withdrew their application. This is an example of much time and energy being devoted to public hearings and proposals that in fact never took into consideration the importance of maintaining the shoreline rather than developing it. Developers can look at examples such as this and realize that it is imperative to propose projects that consider the location of valuable natural resources and develop in concert with them.

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[1] Curren, Bill. Ray Brook, N.Y., (December 5, 1991)

### *Recommendations:*

There are some important things to consider when dealing with subdivisions that are located on or near critical ecosystems such as wetlands or shorelines. One is that permits are required from the APA for subdivisions in these areas. Therefore, to make the process as expedient as possible developers should not attempt to “bid high” with their original proposals. Experience has shown that developers win approval much faster when they consider the existence of natural resources from the beginning. Also there are Federal and State laws that require certain protection of wetlands and these should be fully understood in producing a plan for development in these areas. The Butler Lake subdivisions for example took five years because the initial proposals made no effort to cluster development according to the existence of natural resources. The values of both wetlands and shorelines are immense and it is necessary to protect them because of their economical and environmental value. Once these values are recognized,the permitting process can be expedited by the fact that the initial proposals will be attuned to the natural environment.

# *SOCIAL CONCERNS*

## XI. HEALTH SERVICES

### *Current Trends:*

Health care is an integral part of all successful communities in the Adirondack Park. It is essential that health care facilities are available to the people who need them, whether they require care on a regular basis, or in times of emergency.

Currently in the Park, hospitals are struggling with major financial difficulties. Due to “gaps between the cost of care and the reimbursements offered by the government and private insurers, changing health–care patterns that emphasize outpatient services, expensive regulatory mandates, and the cost of keeping up with mind–boggling advancements in medical technology”[1] hospitals are having trouble keeping their heads above water. These factors have lead to the closure of some hospitals within the Park. For many hamlets the closest hospital is almost an hour’s drive away. In emergency situations this is hazardous.

The loss of these hospitals adds to a state-wide lack of primary care. There are few local and family physicians in the park — less than six doctors for every ten thousand people. Private practitioners are not attracted to the Park as a place to work because of small revenue bases and inadequate facilities. This lack of primary care can hurt the quality of life for residents of the park.

Evidence of poor health conditions in the Park abounds. According to numbers from the Health Systems Agency (HSA), in some areas of the Park death rates from stroke and cardiovascular disease are almost double those in the rest of New York State. In two counties the fetal death rate is also double state-wide rates and prenatal care is generally lacking.

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[1] "The Medical Record," Adirondack Life, November/December 1991.

### *Case Studies:*

Hudson Headwaters Health Network has successfully stepped in to fill the space left by absent family practitioners and distanced hospitals. It is "a system of five community health centers providing the only primary health care to some of the most isolated and impoverished areas of the Adirondacks."[1] Hudson Headwaters serves an eight–hundred–square–mile area of the Park with quality local care. The centers also provide many needed services, such as nutritional counseling and emergency medical training. Fifty-four percent of the center's customers have low or moderate income, so their policy of charging enables more people to get the health care they need. The need for specialized care is still a concern even in areas with a provider such as Hudson Headwaters.

### *Recommendations:*

Basic care, and emergency rescue services are undoubtedly first priorities for Adirondack Park. More networked community–based organizations such as Hudson Headwater, whose success depends not only on quality care, but also on community identity and involvement, may be a distinct possibility for better public health in the future.

## XII. EDUCATION

### *Current Trends:*

Education is the lifeblood of society. It exposes people to elements that they would not encounter otherwise in their daily lives. The educational process provides individuals with the tools to think for themselves, which can lead to greater creativity and productivity within a community. A basic education which incorporates reading, mathematics, science, and social sciences, prepares an individual for the "real world" by giving him or her the tools to develop his or her life.

According to a high school principal in the Park as well as several government officials, the schools in the Adirondack Park, like those throughout the United States, are facing a funding crisis. Within the state of New York, local public schools are funded by a school or property tax on the residents, and supplemented with state aid. The percentages of local and state funds vary from school to school, based on a state formula.

The schools within the Park, however, face a more severe problem than most in the state. Due to limited development and economic growth, the tax bases of the towns within the Park either cannot grow, or are restricted severely. To keep up with the rising costs of running school systems, paying the teachers and administrative staffs, providing books and other teaching aids/materials, the schools need a moderate increase in funding each year. If the tax base were rising at the same rate as the costs, funding would be less of a problem . This is not the case. As a result, tax increases are denied by voters, and state aid cannot make up the difference. An example of this funding crisis is seen in the median salaries of the high school teachers in the twelve counties which lie within or partly within the Park. The median salary of these teachers in 1989 was $27,561 as opposed to a New York state (not including the five counties within New York City) median salary of $31,445 – nearly a

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[1] Ibid.

$4,000 difference.[1] The lack of funding directly affects the performance of the schools and their students. Though the high school dropout rate in the counties of the Adirondack Park is close to average, these schools lag behind the rest of the state (referring to counties outside of New York City) in several other areas. The percentage of students receiving Regents diplomas from these schools falls below the state average as does the percent of students moving on to higher education.[2]

Another aspect of the restrictive funding is the residents' disinterest in the schools. Parental apathy toward education feeds many other problems, such as unwillingness to pay additional school taxes, and student motivation and attendance. According to several Park residents, part of this attitude stems from unemployment situations in towns that depend on seasonal tourism. Residents may not be satisfied with their jobs and income, but are unable to see any way to break free from or to correct the situation. Towns with this economic base have little to offer their children in the way of jobs or future security. Of those who complete school (either high school or college), many leave the area in search of work and a better standard of living in economic terms. There is little that motivates students to take an active role in the learning processes; even with adequate funding, a student cannot succeed without a desire to learn. The jobs available to high school graduates are not much different from those offered to the students while still in school: most are minimum–wage, low skill positions. To curb this situation, schools should offer programs with classes that pertain to real jobs. Students must learn that a connection exists between education and a better job.

## *Case Studies:*

There are several types of educational agencies within the Adirondack Park. Among these are those for assisting teachers, and those for educating the public about environmental factors and the history of the region. One problem facing the schools of the Adirondack Park today is that, due to inadequate funding, it is very difficult for teachers to take part in seminars and workshops to update themselves on current educational issues. It is also hard for these teachers to learn how to operate and how to implement modern technology into their classrooms.[3] A study done on the ratio of computers to children in schools found that south of the New York Thruway the ratio was 1:11 while north of the Thruway it was 1:42.[4] An institution working to overcome these problems is the Adirondack Teacher Center.

### *A. Adirondack Teacher Center*

Of the 111 teacher centers in New York State, the Adirondack Teacher Center (ATC) is the only one that specializes in environmental education, due mainly to its location within the Adirondack Park. The ATC works to eliminate the problems and frustrations of teachers within the Adirondack Park and to combat the problem of inadequate funding. One direct method they use is the Mini– Grant

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[1] The University of the State of New York/THE STATE EDUCATION DEPARTMENT
Information Center on Education.

[2] The University of the State of New York/THE STATE EDUCATION DEPARTMENT
Bureau of Elementary and Secondary Testing Programs/Bureau of Educational Data Systems
COMPREHENSIVE ASSESSMENT REPORT REFERENCE GROUP SUMMARIES, OCTOBER 1987, 1988.

[3] The Committee on the Adirondacks in the Twenty-First Century, p.37

[4] Colleen McNerney, The Adirondack Teacher Center.

Program. If a teacher has a project he or she would like to work on with his or her class, but cannot fit it into the school budget, he or she can apply to the ATC for one of these grants. The teacher center gives several thousand dollars a year to teachers within the Adirondack Park for special projects.

Another way that the ATC works to counter the funding problem is by offering enrichment programs that are free or of minimal cost. Examples of these programs include computer operation and educational software introduction, clean air workshops, and various seminars. The teacher center also organizes several educational programs that benefit both teachers and students. One outstanding program is the Spruce Up America campaign. The ATC has arranged a program whereby teachers and their students can receive, free of charge, assorted types of seedlings and information on their care and planting. Along with another local group chosen by the teacher (such as a senior citizens center), the students plant the trees in their town. Through this program, students learn not only how to work in the outdoors, but at the same time they are learning the importance of trees to the global environment.

A second exceptional program organized by the ATC is the Hudson Headwaters River Watch Program. This program samples water at several points along the river for nitrates, phosphorus, dissolved oxygen, and temperature, as well as surveying aquatic life within the river. The students that test different parts of the river then exchange information with each other with the goal of developing a comprehensive picture of the water quality in the Hudson River.

The ATC works as a valuable tool in coordinating activities for teachers with the equipment and funds needed, as well as keeping teachers up to date on technological advances. The teachers play an active role in this relationship. A rotating board of teachers from several school districts has significant voice in the ATC. They pose the questions, and request the information which the ATC then researches and acts upon. Keeping the teachers current on new methods of instructions, and finding ways to deal with teacher's common problems, ensures a better quality of education for the students in their classrooms.

Possible objections might address the cost to the State for running these programs. As there are 111 in New York, they must have an affect on State spending. Another objection is that teachers in more remote areas have no knowledge of the ATC, and thus no access to it as a resource.

The ATC is housed in the Adirondack Park Visitor Interpretive Center (VIC) in Paul Smiths. It has a staff of two. The funds for the mini–grants come out of its limited budget. The seminars and workshops that the ATC offers for teachers use the VIC's facilities. The ATC works with the VIC to ensure that students who come with their school classes get the most out of the field trip, by instructing the teachers prior to the visits, and working with students in the VIC classroom and computer area. To reach teachers in further areas of the Park, the ATC publishes a small newspaper that lists the month's activities, any special projects, and recipients of mini–grants. Also, every two weeks, the VIC ecologists host a show on New York public radio called "Field Notes."

### *B. Wells Central School*

Despite the tight budget situation in the Park, one high school teacher has developed an outstanding program that has an immediate, positive impact on his students' futures. One problematic component of education within the Adirondack Park is the lack of curriculae focussing on the unique surroundings in the Adirondack Park.[1] There is at least one shining exception. Scott Regis, a Wells Central School social studies teacher, has created a wilderness curriculum available to students in grades 9 through 12. The course is tailored to the students' particular interests with the aim to give them practical, hands–on experience in areas that will benefit them when they seek future employment. His 1990 course covered such topics as: first aid and preventive backwoods medicine, minimum–impact overnight camping, gear selection, trail maintenance (inclusive of proper use of tools, felling of trees, and pungent bridge construction), cross–country skiing, group cooperation exercises (aimed at cultivating organizational skills and responsibility), and practical survival skills such as knot–tying and orienteering.

This program has been given minimal funding, yet has been extremely successful in terms of student accomplishment. The equipment for this course has been provided for the most part by the instructor, Scott Regis. He uses untraditional materials in place of textbooks, such as informational packets from outdoor outfitters and state environmental agencies as well as other resources that he has collected in preparation for the course.

Skills such as those taught by Regis prepare students for careers as back–country guides, cross–country ski instructors, DEC rangers, and trail maintenance crew members. An education that can lead to a solid, paying job will keep students in school. Often, teachers make no attempt to connect education with future opportunities. Regis is doing just that with his practical wilderness curriculum.

One possible argument against this type of curriculum is that it does not have the same rigorous atmosphere of a Regents history course. Those who believe that school is for book learning only will take this stand. Others may object on the grounds that students can get on–the–job training once they select a career.

Intense, Regents–style learning clearly is not the goal with this method of instruction. Mr. Regis has chosen to focus on teaching his students skills they can use for the rest of their lives regardless of whether they choose to go on to an institution of higher education. His class involves a great deal of experiential and practical education – which in this case may prove more valuable in the outside world than pure textbook learning.

It is true that in some cases, applicants receive training once they are hired in a new job. However, a basic knowledge of the skills needed for each job gives one applicant an advantage over another, less prepared one. Also, students who are exposed to practical, outdoor skills will be able to experiment with possible careers, and decide if the work suits them. This gives students ideas for future jobs, that they might not otherwise have considered, as well.

### *C. Wilderness Seminar*

Another successful example involving both education and the environment comes from outside of the Adirondack Park. A highschool class in Connecticut centers around the human / environment relationship in great detail. Though similar to the class in offered in Wells in some aspects, it differs in others. The 'Wilderness' class is a full year, double credit course, with one credit being English and the other a general elective. According to Matthew Holloway, one half of the instructing team, the goal of the course is not only to give students some hands on experience in the outdoors, but is also to enable today's youth the opportunity to develop a sense of place on the earth. The class seeks to open students' minds to issues regarding nature and the environment, and to help in the formation of an ecological consciousness.

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[1] The Committee on the Adirondacks in the Twenty-First Century, p.38

The class is team taught in the format of a seminar. Students are assigned a specific amount of reading for each meeting and are expected to enter class ready to discuss that reading. The grading is nontraditional, with the students responsible for choosing what written work they would like to do and what percentage of their final grade it will be. At the beginning of each marking period each student draws up a grading contract. All students are required to base a minimum of 10% of their final grade on class participation. However, the other 90% is at the student's discretion. Assignments such as research papers, creative writing, exams, class presentations, and outside projects are among the other options included in the contract.

The instructors have chosen several paths to enlighten their students. The first of these is literature. A diverse selection of readings are chosen in order to look at issues of nature and the environment from may different perspectives. Books have included, but are not limited to: *A Sand County Almanac* by Aldo Leopold, *Walden* by H.D. Thoreau, *The Monkeywrench Gang* by Edward Abbey, *Changes in the Land* by William Cronon, and a book specific to the concerns of the Adirondacks, *Woodswoman* by Anne LaBastille.

The other main component of the class is a series of field trips. These trips have been to many places including state parks, a local land trust, a nature center, and lectures sponsored by the Audobon Society. One particularly unique element of this program is that the class has access to a small cabin that was donated to the school. It is here that practical outdoors skills are taught and practiced. The students have learned how to chop and stack wood, construct bunks, build fires, and to identify animal tracks, trees, and other plants. The instructors have forbidden any type of electronic device to be brought to the cabin. Though at first the students thought this made for a boring time, they have since learned to appreciate the simple beauty and solitude of the area.

As a means of drawing all of their experiences with nature together, the students are required to write three weekly journal entries expressing their feelings about what they have read, heard, seen, or done. It is here that the instructors have been able to identify a distinct change in the students attitudes toward nature. Early in the year many of the entries were summaries; as the year has progressed they have transformed into a platform where the students express their opinions on nature and the state of the relationship between humans and the environment. A much greater reverence for nature and what it has to offer has been developed.

An appreciation of one's place in the natural world is necessary in order to develop a sense of value about your surroundings. Through study of this type it becomes clear that natural beauty not only has intrinsic value, but also holds the potential for economic value. There are many jobs that depend on the survival of wilderness; among those are work in conservation, forestry, and many forms of tourism. The protection of natural areas will lead to economic benefit.

An objection to this class has been that it does not really have a place in a rigid highschool curriculum. This discipline does not fall within the traditional boundaries of highschool studies and therefore should not be included at this level.

In fact, as Mr. Holloway emphasized, this course is very applicable. Today's environmental crisis demands a change in society. This begins with a value transformation in the youth. A curriculum such as this opens student's minds. It allows them to see many angles of the debate over nature and also allows them to make educated decisions based on both economic and environmental concerns.

### *Recommendations:*

The Adirondack Teacher Center offers an incredible amount of support to the educational system within the Adirondack Park. The benefits to both students and teachers are immeasurable. It is essential that all of the teachers within the Park recognize this valuable resource and use it to their advantage. The school districts should be actively involved with publicizing the ATC and strongly encourage their teachers to attend conferences and lectures whenever possible.

With some additional funding, programs such as the one pioneered by Mr. Regis, functioning in schools throughout the Park, have the potential for widespread positive impact. Students could use these skills to take advantage of their residence within the Park, capitalizing on the special qualities of the Adirondacks to create job opportunities. Quality education allows individuals the opportunity to improve the economic conditions in their communities while preserving the environmental integrity of the surrounding areas.

Curriculums like the Wilderness Seminar must be funded by the state and implemented throughout schools in the Park. There would be no need for retraining of teachers as the existing English and science teachers are well qualified to teach a class such as this. A literary approach from different perspectives enables a value building experience for the students involved. This, alongside the teaching of practical skills, gives a well–rounded approach toward the issue of humans and the environment.

## XIII. GOVERNANCE

### *Current Trends:*

For any system of governance to work smoothly, it is necessary for the two parties involved, the governing body and the governed, to establish a widely accepted or approved structure. Theoretically, in the United States, the power to govern is granted by the citizens to their chosen government. This implies that the governed must have some sort of voice, or means of communication within that system. Citizens cooperate more readily and more peacefully when they agree with the rules, or feel that they have had some say in the making of those rules.

In theory, the governing structures for the Adirondack Park are arranged so that they take into account the interests and opinions of the residents. The Adirondack Park Agency Act of 1990 dictates the membership of the APA Board that oversees the Park. Section 803 of that document states that the membership includes the following New York State officials: the Commissioner of Environmental Conservation, the Secretary of State, the Commissioner of Commerce, and eight members to be appointed by the Governor with the consent of the senate, to serve terms of four years. Of these appointed members, five must be full time Park residents, no two of which can reside in the same county. The other three must come from outside the Park. No more than five of the eight can be from the same political party[1].

As a safeguard, the Act also establishes a watchdog body, the Adirondack Park Local Government Review Board[2]. The Review Board is assigned the duty "of advising and assisting the APA in carrying out its functions, powers and duties" while also trying to "monitor the administration and enforcement of the Adirondack park land use and development plan and periodically report thereon.."[3] This board consists of twelve members, each a resident of a county entirely or partly in the Park, with terms determined by the legislative body of each county. No more than one representative may come from a single county.

Although the governing structure appears to contain all the elements necessary for success, citizen approval (consent of the senate on gubernatorial appointments), a check to power, or watchdog agency, and a means of citizen input, the majority of Park residents interviewed are discontent with the system. Most of the residents harbor a great deal of hostility toward the APA and the Governor of New York. The most popular and wide–spread complaint voiced in interviews is that the residents are not represented in the agency that governs them; therefore, they have no say in their own destinies. Big issues dealing with the Park are brought to a vote in the state legislature in Albany, where the residents' representatives constitute a minority. Hence, residents argue, people in New York City have more of a chance to affect decisions directly concerned with the Park than do the Park residents.[4]

Residents argue that outsiders take a more environmentally centered view of the Park, neglecting the economic needs of the residents. A county planner in the southern portion of the park explained that people's perceptions of the Park change with distance away from the Park. That is to say, someone living in a community adjacent to the park would be sympathetic to the needs of the residents of the Park, as economic conditions are similar. However, the farther away from the Park people live, the stronger their environmental attitude and consequently, the weaker their support for economic needs of residents.

A related problem is that Park residents have few channels to which they can direct their opinions and complaints. There is no concentrated effort by residents to bring themselves together in order to form a unified organization for the specific purpose of making their interests and opinions known to the correct officials. There is no Park resident lobby in Albany. This is due to the lack of funds, organization, and motivation needed to communicate with and bring together enough residents and to pay a full–time lobbyist. With failing confidence in local governmental structures, some residents have formed coalitions aimed at furthering their interests. These include The Adirondack Solidarity Alliance, Adirondack Conservation Council, and the Adirondack Blue Line Confederation.

### *Case Studies:*

The best method of working within the current system seems to be to increase control on a local level. Towns can achieve a form of self–determination by establishing their own zoning and land use regulations. These must fall within APA guidelines and meet APA approval. One of the few towns within the Park to have established zoning codes is the town of Caroga Lake which has had its own zoning codes since July,

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[1] Adirondack Park Agency Act, amended 1990, section 803, p. 7.

[2] Ibid. section 803-a, p. 8.

[3] Ibid.

[4] personal interview.

1979. The town worked with the APA to design regulations that met all necessary requirements, and now Caroga Lake operates with little involvement from the APA.

### *A. Tupper Lake/Altamont Land Use Code*

The village of Tupper Lake/ town of Altamont is polishing up a land use code. In section 1.3, the purpose and objective of the land use code states the following:

> "The purpose of this code is to promote the health, safety, and general welfare of the community by channelling and directing growth, and by regulating and restricting the height, number of stories and size of buildings and other structures, the percentage of lot that may be occupied, the size of yard, courts and other open spaces, the density of population and the location and use of buildings, structures and land for trade, industry, residence or other purposes, to the maximum extent permissible within the proper exercise of the police power as delegated by the Town and Village Laws."[1]

It is obvious that such a land use code is comprehensive, taking into account all aspects of town activities, structures, and local growth. The key phrases in the above section are those confirming power of delegation and enforcement to the Town and Village. A land use code such as this brings control back to a local level, giving residents a form of self–determination.

Possible objections to developing a land use code are those dealing with funding and technical knowledge. According to several local officials interviewed, the biggest barrier preventing the Park's hamlets, towns, and villages from this form of self–rule is the process of creating their own regulations. To create zoning or land use regulations and to use the correct channels to get APA approval, the hamlets need professional assistance—both technical and financial. Neither the state nor the APA provides funding for local planning needs. As the hamlets cannot afford the high costs of the necessary technical advice, they were offered funding at one time. Unfortunately, this funding is no longer available.

A possible solution to this problem is for the State to provide financial and technical assistance to towns and villages expressing interest in developing land use codes. Other options are private organizations, comprised of citizens who have the professional skills needed. These groups could serve as consultants to the local governments for the technical aspects of the codes. Also, they could help the governments apply for grants to support the implementation.

### *B. Friends of Keeseville--A Local Planning Assistant*

Citizens in the village of Keeseville have made tremendous strides in revitalizing their community. Keeseville was a commercial center following the Civil War until the 1950s. Then, as the availability of transportation increased, Plattsburgh became the new center. The Adirondack Northway, which was completed in 1970, was constructed in a way that allows travellers to bypass the village. Consequently, Keeseville was a disorganized village of dilapidated closed mills and vacant buildings during the 1970s. This was due to “many forces seemingly beyond local control [hence] Keeseville’s economic vitality [was] sapped, although some manufacturing still exists.”[1]

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[1] Town of Altamont Land Use Code, pub. March 22, 1989, p. 1.

The Village successfully has completed numerous projects aimed at revitalization between 1981 and 1991. Among these are Riverside Park Project, Little Friends Learning Center, Inc., improvements for the fire house, sidewalks, waterlines, and streets. Additionally, the village has generated sixty jobs through assistance to businesses and rehabilitated housing to benefit 618 people.[2]

The keystone to this activity is the Friends of Keeseville: “a community–based organization whose function is to guide and implement the non–regulatory planning proposals identified by the Planning and Village Boards. The Friends of Keeseville focuses on continuity and the development of capacity to deal with community problems on an ongoing basis. This local capacity is special because it has produced a network of private and public interests, which can direct Keeseville’s future...”[3]

One of the Friends of Keeseville’s contributions is applying for grants. They prepared nine applications for grants totalling $1,818,000 between May 1990 and January 1991. Of these, six were approved.[4] The Friends also run an economic development program with six segments: Entrepreneurial and Small Business Assistance, Industrial Location Service, Participation in North Country Alliance, Administration of the Village of Keeseville Economic Development Revolving Loan Program, Main Street Revitalization, and North Country Regional Economic Development Council.[5]

Through these actions, the Village of Keeseville has made some major improvements in the overall appearance of the area. Additionally, the village has established a number of community–oriented social services, such as the Little Friends Learning Center and rehabilitating housing. The Friends of Keeseville’s economic assistance programs aid businesses, and have been instrumental in creating new jobs for area residents.

Problems with this form of community revitalization include insufficient funding, lack of knowledge for grant applications, and limited capacity in terms of human–hours to process applications. Not all towns and villages have a citizens’ support group to help them organize and pursue these channels of community aid.

However, with their experience the Friends of Keeseville now offers a program to help other communities in the North Country begin revitalization programs. This program aids in grant applications and provides technical assistance for waste treatment and finding sources of funding for municipal needs.[6] With this kind of local–level aid, other communities can develop groups such as Friends Of Keeseville to rejuvenate their areas. In 1989, for instance, the program first helped the Town of Bellmont prepare a HUD application, which was approved.

***Recommendations:***

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[1] *Keeseville, New York Downtown Revitalization,* prepared by Susanna Adams, Office of Terrence J. Boyle, Burlington, VT: June 1, 1980, 1.

[2] *Village of Keesevile Accomplishments in Community Development- 1981-1991.*

[3] *Keeseville, New York,* 1.

[4] *Friends of Keeseville, Inc. Annual Report March, 1991* 5–6.

[5] Ibid, 7–8.

[6] Ibid, 10.

If current trends of governance with little citizen input continue, hostilities between the citizens and the APA will escalate, with continued inaction in productive, political terms, on the part of the residents. They are angry and feel abused, but are unsure of the best way to correct the situation. One resident in Caroga Lake termed the relationship “taxation without representation”. If effective communication is instituted by either the state or the residents, this situation may be alleviated.

Attempts by the APA to address the problems of resident hostility and alienation have failed to be effective. Thursday afternoon meetings at the Park headquarters in Ray Brook are a sign that the APA recognizes the problem. However, these meetings must be run more efficiently, and should be held in towns throughout the counties in the Park, not just in Ray Brook, so that residents from all areas of the Park could attend. The governing bodies that exist are not efficient at present. Correcting this problem should be a high priority of the APA and the Park residents.

A possible solution is to create a system of meaningful communication between the APA and the Park residents; to establish a network, much like a circuit–rider program. Representatives from the state agencies would travel around from town to town within their circuit (say 2 or 4 circuits in the Park). In each town the representative would hold information and opinion exchange sessions open to all citizens. This would disperse information efficiently and offer an opportunity for residents to ask questions about rules and rulings and to discuss any relevant subjects. This sort of communication would give the residents a better understanding of how things work within the APA, and a channel by which to communicate heir feelings and interests to the authorities who can then transform these sentiments into action. For its part, the APA must be willing to hear and respond to citizen input. Cooperation and communication are the keys to a stronger, working relationship between the agency and the residents.